The RCEME QUARTERLY

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No 2

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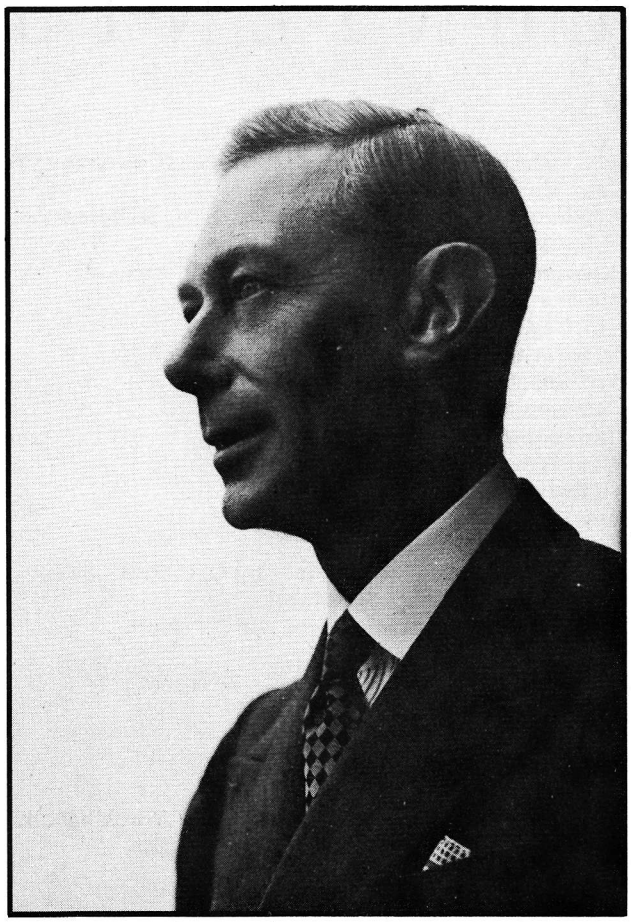

His Late Majesty King George VI

1895--1952

THE RCEME QUARTERLY

The information and statements herein are not to be quoted as authority for action. The Quarterly is published to assist RCEME personnel in keeping abreast of current trends and developments and to circulate interesting news about the Corps.

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EDITORIAL

As is our usual custom, we provide our readers with a mixed bag. On the one hand, photographs of our Corps serving in Korea, on the other a study of the basic principles of vehicle suspension by Lt J. G. Metcalf. We would like to emphasize that the technical articles we print are not to be considered as information packets to be memorized and applied later in the solution of specific problems. The Quarterly is not a text book. Rather, the purpose of its technical matter is to stimulate thought on fundamentals – and mental exercise is desirable for both engineer and mechanic.

There are few paragraphs in any issue that cannot be understood by practically everybody in the RCEME, and if you cast your mind back you will be surprised, perhaps, to realize how much of the Quarterly is written by the junior officer and NCO. This is as it should be, if only to avoid the psychologically adverse effect on the troops of a magazine contributed to entirely by half-colonels and majors.

There is no better way of learning about a subject then by attempting to write an article or a paper on it. It is our wish (and our policy) to encourage the NCO and the junior officer to do so. In this way, we believe the readers are led painlessly to think, and the authors do themselves a powerful lot of good.

Notwithstanding some of the remarks made above, an excellent example of clear thinking is the article by Lt Col 'Skip' Huddleston on page 4. As a Corps of technicians, it is our duty to be able to analyze problems of many sides, and the one he has chosen is a timely and fascinating one.

* * * * * * * * * * * * * *

In this number we reproduce the final issue of the unit paper of 3 Cdn Inf Tps Wksp, "Our Assembly Line". We do this because tradition is built on past performance, and unless we record an achievement, it will be lost to the future. We know that there is a mountain of mouldering war diaries somewhere at AHQ, but the personal touch is absent from these stilted compositions by reluctant authors. We urge past and present members of the Corps to send us any accounts they may still have of operations and exercises; descriptions of training or leaves; with pictures, maps, or photographs. Give us the names of the people making up any groups, or some clue as to how we can identify them. Dig into that old box now, and mail us the stuff today.

Variables in the Field of Small Arms

SOME OBJECTIVE THINKING

By Lt-Col A.N. HUDDLESTON ptsc RCEME

Let it be clear from the outset that this is not a technical article. Neither is it an article that will come to a conclusion although the editor assures me it will certainly come to an end. Maybe the reason for writing this is that the author doesn't like lawyers. I don't mean that I dislike them as persons, but I dislike intensely the effect they have had on our way of thinking. Time was, and not so very long ago, when men thought straight, reached their own conclusions, and had the moral integrity to stand back of them. Lately, however, we have been deluged by lawyers with the concept of a blindfolded Justice reaching conclusions with a set of balances which we would refuse to use to measure out dog meal. The law, we are told, is too complicated for the average citizen to understand. We must submit our right of thought to our lawyers, who, in their more infinite wisdom, will try and get a thumb on Justice's scale pan while the old hag is still blinded.

What has all this to do with arms? Well, two things. First, because we have become accustomed to having our thinking done for us we as a race are gullible. We have become accustomed to believing anything we are told provided we are told often enough and loud enough. But RCEME is a Corps of professionals. It is our ethical responsibility on all technical subjects to keep free from tacit acceptance as fact, any statements, until we are personally convinced from our own evaluations. Second, even Justice illustrates in a way the need for a method of achieving such evaluations without being distracted by outside propaganda. This is the real reason for writing.

The subject of the relative merits of British and American small arms has resulted in much discussion in the public press. In no releases that the author has read has there been a complete freedom from sensationalism. Misstatements are made with solemn authority and facts are buried to bolster the point of view of the journalist concerned. And yet, despite all the warping of facts and figures, we in the Corps should be able to reach independent and accurate evaluations if we are truly objective in our approach as technicians. It is my object to provide the scales, or more properly, a framework to keep our thinking objective. It happens that I will use the small arms field as the area in which to write because of its current interest, but the same approach to any engineering problem is basic.

We are all familiar with the first step in solving any technical question. This is to get a clear statement of the problem. In this case, a number of questions have been posed in the press. Representative of these are:

"What should be the long-term personal weapon for NATO forces?";

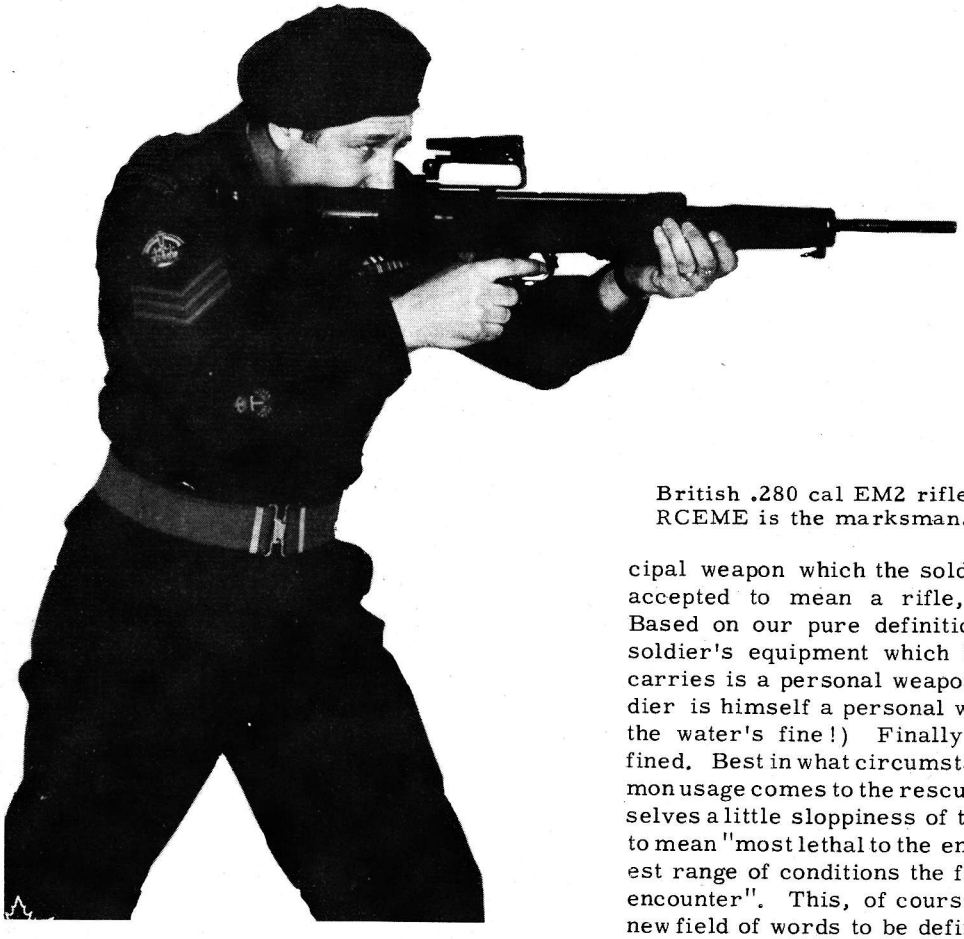
"What is the best personal weapon for the foot soldier?";

"Is the proposed British rifle better (or, "as good as", or "worse than") the proposed US rifle?";

"What weapons should Canada adopt –
(a) for immediate use, and
(b) in the future?".

At first glance all these questions would

seem to have a common answer and the writer deplores the tendency of the journalists to encourage this casual linking together of separate problems by writing infinite variations on the same theme. Actually a very little consideration would lead us to realize that there may be a different answer for each of the four questions cited. Granted that if certain assumptions are made, there may be a common answer; we as examiners of truth must be aware of such assumptions and be willing to assess their validity. For argument's sake, however, let's take just one question at a time. Then, having reached an



British .280 cal EM2 rifle; S/Sgt Ed Bovey RCEME is the marksman.

answer to that, it's time enough to see if it will also solve other questions and under what assumptions. Of the above question, the most general would appear to be "What is the best personal weapon for the foot soldier?", so let's try to set up a frame work to guide our thoughts on that one.

Now do we really understand this question as such? What do we mean by 'personal' weapon, 'foot soldier', and 'best'? Are we sure that our idea of what these words mean will coincide exactly with the ideas of everyone else? To the writer, a foot soldier is one whose primary role in fighting is to act as a personal unit of strength as opposed to being one of a team as in a gun or tank crew. Now, obviously, that is not a military definition, but it does set up a specific limit to the circumstances surrounding the problem. Similarly, the word 'personal' must be limited. Again purely to the writer, 'personal' as applied to weapons means the arm the foot soldier should always have with him, at least in action (I could get into very deep water here.) In common usage, the term is applied to the principal weapon which the soldier will use, and is accepted to mean a rifle, carbine or pistol. Based on our pure definition, any part of the soldier's equipment which he as an individual carries is a personal weapon. In fact, the soldier is himself a personal weapon (Come on in, the water's fine!) Finally 'best' must be defined. Best in what circumstances? Again common usage comes to the rescue and we allow ourselves a little sloppiness of thought and define it to mean "most lethal to the enemy under the widest range of conditions the foot soldier is apt to encounter". This, of course, opens up a whole new field of words to be defined and gets us into the more technical aspects of small arms before we have even done more than try to understand the question our hypothetical buddy has asked over a quiet pint at the start of what might have been a dull evening.

What is the 'widest range of conditions apt to be encountered?' (Let's not get side-tracked again, fellows, I'm trying hard to keep away from that kind of story.) Let's put 'conditions' to one side for the moment and come back to it again. What is lethality? Any purist would point

out that there are no degrees of lethality. You can't kill the same man twice and if he isn't quite dead, obviously the weapon wasn't lethal.

Perhaps the lawyers' type of thinking had something to do with it, but for military purposes lethality is satisfactory if the recipient of a wound is either killed outright or the wound will result in definite hospitalization. Official credit for this definition goes to the various Medical Corps of the UK, US and Canada. Maybe the

US Army experimental lightweight .30 cal rifle. (Official US Army photo)

MOs are content if they get lots of customers. The PBI would probably go only for the first part, particularly if facing a bayonet charge. However, all the standards of lethality seem to have been set up by the docs on the wider basis. Can we test lethality? Yes, in a sense. Considerable work has been done by firing into gelatin blocks which act somewhat like flesh. But such tests don't take into account the effect of hitting a bone and only partially show the effect of "transient cavity". A fast-moving bullet has stored up in it a lot of energy. When it strikes flesh, the surrounding area not in the direct path of the bullet is forced to absorb a lot of this energy and is injured or destroyed although there has been no actual contact between the damaged tissues and the bullet. This effect can be approximated in animal flesh and, since there is a current lack of human volunteers, goats and sheep have to furnish the experimental media, but no one can say for sure that there is a direct relation between this and human reactions.

Hunters speak knowingly of "stopping power" but there is no sure way of determining just what is the stopping power, ability to create transient cavity, or similar properties of a bullet. All we can conclude is that at the moment of strike, the bullet transferring the most energy to the target will have the best chance of killing. Now let's watch ourselves; I said "transferring energy to the target", and "at the moment of strike". Obviously the bullet has to strike the target, and secondly, the bullet has to lose energy to the target after striking. So, instead of coming up with a nice packaged standard of lethality we are off on two new tracks. Let's recognize that, and while exploring one, not lose sight of the fact that we will have to come back to explore the other, and then see if there is any effect of one on the other.

What are the properties of a bullet tending toward a high transfer of energy to a target? Obviously the variables in the bullet are speed, weight, shape and material. In the limited field we are discussing, and because of other variables which we will explore in due course, there is a connection between weight and the speed that can be imparted by a weapon. Energy of a moving mass, at any instant, is mass multiplied by vel-

ocity multiplied again by velocity. Hence, because the velocity term comes into the expression twice, a percentage change in velocity has more effect on energy than a similar percentage change in weight. Therefore, we can explode a popular saying that a heavy slow bullet has more stopping power than a light fast one. That is to say, we can explode it provided that the lighter bullet does experience a comparable velocity change in striking the target.

The loss of velocity at the target is, however, a function of bullet shape, both immediately at strike and later as the bullet deforms and continues to move through the target. Thus a larger calibre bullet with its increased cross-sectional area will tend to be slowed down more in a wound than a small calibre bullet of the same weight, if they both strike similar targets at similar velocities.

A bullet which deforms and presents increased resistance in the wound will lose more velocity and hence transfer more energy to the target. Hence, bullet material may have as much to do with stopping power as has calibre. Note that in this, we have already made an assumption that the target for the personal weapon of the foot soldier is another foot-soldier. If we change the target, again we introduce more variables. This thing will be long enough without doing that, but since this is a lesson in thinking, let's remember that another assumption has stolen in.

Next we should consider the speed of the impact and its problems. Any bullet travelling through air slows down as it flies along. However, some shapes of bullets will slow down in flight more than others of equal weight. In very general terms, bullets having equal weight will slow down in proportion to their cross sectional area or wind drag. For equal cross section, the lighter bullet will slow down more. Hence what is really wanted is a long thin heavy bullet. Carried to extremes, we would get a shaft of metal long enough to reach from soldier to soldier, sharp on the front end and requiring a very low velocity. Then we are back to the swords and our whole problem is answered. However, that will probably be considered as too radical.

In order for the bullet to have sufficient remaining velocity when it gets to the target, then, we must give it a velocity at the muzzle greater than we need for lethality at impact. However, to get the greater velocity at the muzzle means that the gun or rifle will have to do extra work which in turn, in the case of the hand-held arms, means that the recoil effect for a given weight of weapon is increased. Or alternatively if the weapon is already giving as much recoil as the soldier can absorb and it's necessary to increase muzzle velocity with the same weight of bullet, then the weight of the rifle must be increased. Hence it is extremely important that a bullet be designed that will lose as little energy as possible while in flight.

Now let's look at the other track we put to one side a while back. To strike the target, certain conditions must be fulfilled. Accuracy at a given range is a function of both ammunition and weapon. Each round of ammunition must be the same in its behaviour on firing as the next. However, no devices made by man are ever exact duplicates. The propellant will vary just a bit. The weight of bullet will vary just a bit, and so on. Consequently, careful adjustment of these variables must be carried out during manufacture so that one variable will compensate for the other.

The effect at the target due to variations is some percentage of the total bullet energy. With a high energy round, the variation in individual variables to give the same percentage change can have a higher absolute value than in the case of a low energy round. At the same time, we must consider the amount of material available with which to produce the energy. A small hardworking cartridge will not have the same facility for adjustment as a larger easier working one. In other words, it doesn't pay to send a boy on a man's errand. Don't, however, let this be confused with the subject of calibre which is only one function in the overall performance of a cartridge. More than anything else it ties in with the volume of the cartridge case.

So far almost all the variables discussed have to do with the ammunition. In a discussion on accuracy, however, we have to examine the weapon as well. Experience has shown that certain conditions in a weapon, if met, will lead to accuracy in the narrow sense that the weapon will repeatedly put a bullet in the same place if held the same way. Barrel stiffness has a considerable effect on accuracy as has constancy of head space. Low rate of wear and rapid dissipation of heat between rounds fired also has its effect. Accuracy of machining of rifling has also a second order effect. All these factors would lead the designer to create a heavy weapon. On top of this trend is the desire for weight to reduce recoil from a high energy round and to build a larger and therefore heavier chamber and action to allow greater volume in the cartridge case.

Now let's sit back and while another pint is being fetched, we'll just take stock of how far we have gone.

1. We have defined 'personal' weapon.
2. We have defined 'foot soldier .
3. We have partially defined and explored 'best'.

4. We put to one side a discussion on what are the conditions under which the weapon will be used until we had cleared up some basic points.

5. We have discussed lethality and shown that the larger calibre is not necessarily more lethal.

6. We have shown that bullet material and shape have a great effect on lethality.

7. We have shown that larger calibre tends to increase weapon weight.

8. We have shown that accuracy requirements tend to increase weapon weight.

Good heavens! If we have done all that, tell the girl to make that a quart, and let's get back to examining "the widest range of conditions the foot soldier is apt to encounter". (Take that leer off, Jackson, remember you're a technician!)

Now let's introduce another little gimmick to keep our thoughts straight or at least to ensure that we are covering all points. Any set of conditions is specified when we can answer "what", "when", "where", "how", "by whom", "why", and "how much". Some time when one of you fellows has some idle time on a Gorton available, I wish you'd engrave these seven items on a nice brass plate for me, and make one for yourself at the same time. If applied to the writing of any report or order, they will ensure adequate coverage even if you don't get the approved abbreviations all in place.

Let's try it out now and see how it works.

"What" — We are trying to state "the widest range of conditions the foot soldier is apt to encounter".

"When" — Primarily in war. There may well be secondary police uses and peacetime training functions. Required in all seasons.

"Where" — Anywhere in the world. If this is too sweeping, standards have been laid down as to minimum and maximum temperatures at which the weapon must function, and tests have been devised to simulate muddy, dusty, rainy or snowy conditions. It may be used in open country or in jungle.

"How" — Varying from maximum range at which hits can be obtained to close-in fighting such as street clearing. Single shot usually, but fully automatic desirable to get a large volume of fire such as might be useful if repelling a close charge. Accuracy requirement probably not as rigid under such circumstances. The user will have only limited training so the weapon must be safe.

"By Whom" — Weapon and a useful supply of ammunition to be carried by the soldier personally. Remember this is the weapon for the foot soldier. If the same weapon is useful to other arms, all the better, but that's another question.

"Why" — Because some – CENSORED – said to do it!

* * * * * * * * * * * * * *

In time of emergency it is better to do some intelligent thing quickly than to search hesitatingly for the ideal.

* * * * * * * * * * * * * *

"How Much" — I said a quart, please – Oh! — Well, the weapon should be able to perform reliably as long as ammunition is available. It should be easy to clean in the field and simple to maintain because the user isn't an armourer.

There now, we have outlined the circumstances with little fuss and bother because a frame to guide our thoughts was set up first. I'll bet when we started you didn't think all this ground work was necessary but only now are we in a position to start to consider the word "best". Obviously the best weapon is one which gives the maximum of all the variables mentioned to date, ie. lethality, accuracy, range, automatic fire when needed, light weight, freedom from recoil, dependability, and simplicity. But without our ground work we might have been tempted to take any one of the above variables and by stressing it, assuming the other variables were at a satisfactory level, try to prove by that one point alone the superiority of our favourite weapon.

However, since we are so smugly superior, let's go back over the new factors introduced by our last few paragraphs and see what effect they may have.

The weapon is to be used primarily in war so we must assume that, while a fair stock will be assembled in peacetime, wartime manu-

facture will be a necessity. This means that, apart from cost in dollars altogether, it must be simple to manufacture, or at least not require a high degree of skill on the part of the machine operators. It should not require large quantities of strategic materials which may not be obtainable in time of war. Mechanical simplicity is desirable for these reasons and particularly because of the all season use and simple servicing requirements. Generally, the fewer moving parts there are in a weapon, the easier it is to manufacture and to keep functioning in varying climatic conditions.

We note need of a maximum range commensurate with accuracy and also a need for automatic fire. Safety to the user is a definite requirement. These three factors will tend to increase weight. But now comes the "who" angle and weight is the big factor to avoid.

If it was not obvious all along, it has now been proven that there can be no small arm perfect in all factors, since some factors present contradictory demands. The "best" that can be done is a reasonable compromise to meet most conditions. There is no qualifying the fact that the weapon is to be carried personally and in spite of all the PT and the fact that the PBI consists of the flower of Canada's manhood (whoever started that phrase anyhow?) there is a limit to how much a man can carry and march. Experience has shown that the limit has already been reached or passed (depending whether you happen to be watching a parade or finishing a route march). Hence the weight of the current personal weapon must not be exceeded by much in order to gain other characteristics or the poor soldier won't be in a fit state to use it anyway.

"What is the best personal weapon for the foot soldier?" I warned you at the start that I would not come to a conclusion. Obviously the answer will depend on the relative importance put by the General Staff on the various factors involved. Also, obviously, this is not simple to decide since all recommendations from users are coloured to some extent by personal experience. The circumstances of past use of weapons will be highly personal and important to each adviser.

However, we have laid out the factors that must be evaluated in the comparison and I hope in doing so have illustrated a method of general application. Let's see how it looks in print.

1. Put down in black and white one and only one question which is to be answered. In a family of questions, it is usually best to deal with the most general one first. Having cleared it up, the rest become specific applications in which one or more of the general factors become amplified or eliminated.

2. Define carefully each word or phrase in the question so that the exact "bounds" are understood.

3. Define these bounds if possible in terms of factors, the degree of which can be determined experimentally.

4. Eliminate as many assumptions as possible and, when not possible, express the assumptions in definite terms.

5. Remember the seven factors "what, when, where, who, why, how and how much" when laying out pertinent factors relative to any circumstances.

6. Establish those factors for which a degree less than perfection may be satisfactory and those for which no qualification is acceptable.

7. After having laid out in orderly fashion all the factors and their degree of attainment, then – and only then – venture an opinion, subject to the assumptions still involved, on the relative merits of any two courses.

At last, my son, you are a Master of the Science of Epistemology* and that's far more important in the long run than knowing the answer to any one problem with which we may be faced.

§ §

* Epistemology - see bottom of page 21.

Presentation

A hand-carved reproduction of the RCEME crest was presented in January of this year to the DME and all ranks of REME, from the DEME and all ranks RCEME.

In acknowledging this gift Maj-Gen S. W. Joslin CB, CBE, DME War Office, wrote Col Boehm, our DEME as follows:

"I have heard from ... Arborfield that a very fine shield on which is mounted the crest of RCEME has arrived there from Canada. I am writing on behalf of all ranks of the Corps of REME to thank you and your Corps very much indeed".

Col Boehm also heard from Brig G.E. Butler, Commandant REME Training Centre Arborfield as follows:

"It is a very fine piece of work ... Would you kindly thank ... everybody concerned ... and congratulate them on such a fine piece of craftsmanship".

INFORMING MEN

The Royal Bank of Canada distributes a "Monthly Letter", which is written in essay form. A recent one was entitled "Informing Employees". While it referred, of course, to civilian business, it struck us that it was likewise clearly applicable to military life. Imitation, they say, is the sincerest form of flattery, but we would like to acknowledge our indebtedness to the anonymous RBC writer for the ideas and phrasing which we have adapted.

Mutual understanding is one of the world's great needs, and there is no sector in which it is more to be desired than between officers and men.

One important realization is that personal relations are made up largely of attitudes. It is the way people look at things that counts. Unless the men understand what the brass is doing, and why and how, their fullest support cannot be expected.

Those charged with the task of informing men about their work need the ability to walk all around every proposition and situation, viewing it from the workshop window as well as from the OC's office.

The craftsman looks to his officers and to his NCO s to furnish him with facts as to the role of his unit at the present time, and to answer questions as to his career in the future. Until this is done, we cannot expect to find emotional stability, nor can we look with confidence for the lively interest in the job which should be normal in all soldiers.

The officer who asks, at this point, "but what about the NCO s, the WO s, isn't that their job?" is putting his finger on an important feature in army relations. The NCO is indeed the key man. He is the natural person for a craftsman to turn to when he wants to know something about his unit. But what we are suggesting is that something extra that will build the spirit of belonging we are seeking, as a way of consolidating soldiers' interests with those of the unit or of the Corps.

The NCO must be played up. To do a good job he must be given not only authority and prestige, but information. If he is to do a good job of answering craftsmen's questions, he must be thoroughly familiar with the unit's policies and activities. If these requirements are met, no medium for carrying information can equal the NCO.

Further, unless the NCO is informed, and in such a way as to make him feel that his position is recognized by the giving of extra confidences no programme of information dissemination is likely to be as effective as it might be.

-After Len Norris

"...no medium for carrying information can equal the NCO"

NCO s should know in advance that certain information is about to be given out. Furthermore, they should have supplementary explanatory matter that will make them respected as the source of answers to questions. No matter how well the announcement may be prepared, questions will arise in the minds of the men in the shop. Being able to answer them, or to discuss them intelligently on the basis of superior information, will raise an NCO's standing, increase his confidence, add to his feeling of responsibility, and contribute in an important way to the satisfaction of the men under him.

Some questions will inevitably take the form of gripes or grievances or complaints. Nothing wins the respect of soldiers more quickly or more thoroughly than the establishment of a reputation for handling grievances in a fair and understanding way. It seems hardly necessary to add, or to emphasize, that this goes for both senior NCO s and officers.

Recollections and Recovery

By Lieut H.A. ROSSON RCEME

The author was a WO2 with 191 Cdn Inf Wksp RCEME in Korea until Sep 1951, when he returned to Canada to qualify for a commission in his Corps. He is shown here on the left with the DADEME jeep; others are (left to right) Pte R.R. Sandbery RCR; WO2 S.A. Campbell; Pte E. Lampheard RCASC clerk; and Maj A.H. Lewis DADEME. WO2 Campbell is the RCEME warrant officer mentioned in the story who had to stop his regular work to take possession of the hungry enemy prisoner.

Preparation for the move to Korea in the spring of 1951 was a double-barrelled job for RCEME Units of 25th Cdn Inf Bde. In effect the problem was one of assisting with overseas shipping, processing of Bde material and at the same time packaging RCEME equipment for the same shipment; all in accordance with unfamiliar US techniques. These required that batteries be removed from all closed vehicles and crated, that engines be preserved and sealed, tools preserved and boxed, under surfaces coated with preservative, windshields crated, radiators covered, superstructure and tarps removed and packed, and all openings taped and sealed. AFVs were sealed and ventilated or hung with dessicant. After all this, the vehicles had to be moved about sixty miles to pier. Considerable assistance from US installations, a certain amount of ingenuity, and a great deal of hard work, saw this accomplished, the stores and equipment delivered to port, and the troops ready to load.

Two weeks of comparative inactivity aboard ship made the confusion in Pusan, of mating Unit personnel, vehicles and equipment, some of which the unit was obtaining for the first time, seem riotous by comparison. As a matter of fact, when the time limit for preparation in Pusan became known, things really moved. 25 Cdn Support Wksp, which was to remain in Pusan, deserves much praise for the manner in which it accepted the workload of the lower RCEME echelons in addition to its own commitment and managed, despite a serious spare parts problem, to relieve the other units so that they could get on with the business of 'becoming operational'.

At this time it was found that the working equipment of a RCEME establishment was limited to the load carrying ability of the Unit vehicles and much thought had to be given before the decision, to carry or not to carry, could be made. Between very educated guesses and much blind luck it appears now that all concerned managed to meet a very good balance for the type of work that has been encountered. Not that the transport was adequate even with all the chopping and changing and sacrifice of merely middling-essentials, each vehicle having to 'double in brass' as it were and act as both load carrier and technical shop, stores lorry, or office as the case might be.

In a flurry of last minute piling on of personal gear the main body of the Bde left for the north at the crack of dawn on 16 May and for three days travelled over roads composed of rock, sand, and a fine powdery dust — roads that had seen much passage of war and as they progressed northward were increasingly lined with derelict vehicles and guns of all kinds. Driving conditions were so difficult that in the first day's ten hours of driving we covered only about seventy miles to a rest area near Taegu; the second day a correspondingly short distance to Taejon; and the third day of hard driving attained Kumnyangjangni in the scheduled reserve area for the Bde. Each evening at the first stop a fine grade of pancake batter was removed from

the air cleaners, inches of dust were swept from aching bodies and the business of housekeeping came under experimentation. At about the time that the remainder of the troops were ready to bed down for the night the recovery vehicles would roll in with only their daily jobs completed, and the cleaning and housekeeping still to go.

The US Army vehicle emergency service centers along the route were extremely helpful with light repairs of all kinds; in providing minor assemblies and tires on exchange; and making it possible to maintain the velocity of movement without the necessity of leaving loaded vehicles behind for repair.

The moment all gear was off loaded and production started the order came through to move up, so that the first week after arrival in the general vicinity of the fighting was spent in edging closer and closer to the sound of the big guns; a process of unloading, setting up, going into operation; and then loading up, moving to a new site, unloading and so on around the circle

Left: Cfn A.R. Musson and N.A. Saunders looking dejected while waiting for assistance after their recovery truck toppled over on a muddy Korean road.

Below: Recovery recovers recovery – the job had to be abandoned three times because of mortar fire. (Cdn Army photos)

Two of the many RCEME craftsmen with the Lord Strathcona's Horse in Korea. On the left Cfn Bob Sutherland climbs into his recovery vehicle to answer a call from a stalled vehicle 'somewhere in Korea . In the other photo Sgt 'Butch' Milne examines the bogies on an M4A3 tank.

again. One wonders how the Arabs, who fold their tents and silently fade away, manage to repress the curses that could so easily shatter the silence that gave rise to the phrase.

When the Bde went into action the movement from Uijongbu to above the 38th parallel was so rapid that by the time RCEME location states reached DADME they were obsolete and to find any particular formation it became necessary to question passing drivers as to the approximate spot they last saw a RCEME flag and then follow the line from one to the other. This was quite an interesting procedure since place names in Korea differ with each scale of map used and the drivers invariably were working from a scale other than that being used by the questioner. About this time DADME tried sending a message to all concerned exorting them to "ferkrissake let me know where you're at so I can come where you're to" and that same day saw them all on the road again.

Between the enemy and slippery roads the job of recovery assumed such proportions it required the services of an AWD which put in many long mud-encrusted hours. Mud-encrustation in this country has its own particular horror when the composition of the mud is considered, the land having been extremely well fertilized with human excrement for many centuries. There is a popular (but unprintable) expression denoting a state of trouble that very aptly described life in Korea.

The tactical situation required that recovery operations be carried out in very forward areas under protective fire of our own troops and recovery crews were often fired on by the enemy with both mortars and machine guns; a situation that tends to distract the attention of a man from his work. In one instance a RCEME WO2, quietly minding his own business, had to interrupt it to accept the surrender of a tired and hungry enemy. Work of a technical nature is bound to suffer if this kind of thing were to continue.

All in all a good mobility was attained at all levels; everyone adapted themselves well to the simple life and the flow of production quietly grew in volume. Soon after the Bde fell back to a reserve position the RCEME workload was at a peak but yet the great majority of the backlog consisted of equipments awaiting parts only. In this regard it has been an education in itself to observe the minor miracles performed by RCEME tradesmen in the procurement of 'unobtainable' spare parts.

The maintenance team system of vehicle maintenance was introduced to the Bde in Fort Lewis and so had a chance to get rolling before the fog of war descended. It ran smoothly under the difficult circumstances but considerable driver education is still necessary before the teams will have only their own jobs to do – not the drivers' too.

"C" Squadron LdSH (RC) switched to M4A3 tanks (Sherman, or M4 Medium tanks with Ford GAN 400 hp engines) after arrival in Pusan and their RCEME increment has done a fine job of learning their idiosyncracies.

The usual complaints about the Sten carbine are heard on all levels, armourers doing not the least of the complaining. There are reports, probably untrue, that even our weapon-hungry enemy, who are using amongst other things the good old Tommy gun, does not strive to capture the Sten.

Old lessons were being re-learned along with new ones. The more noteworthy of the new

(Please turn to page 28)

VEHICLE SUSPENSION

By Lieut J.G.E. METCALF RCEME

The highpowered internal combustion engine of today has eliminated available horsepower as the limiting factor of mobility over battlefield terrain. Logically then, suspension becomes the foremost factor. Spring suspensions of vehicles have undergone revolutionary changes pioneered in Germany by Rumbler, Mercedes and Faudi and in France by Bollée, Delahaye and Harris Léon Laisne.

Since the fundamental requirements of a vehicle suspension are to provide physical and mental comfort coupled with safety for the occupants, then the best spring suspension would be one which most effectively insulates the vehicle and its load from road shocks. Good suspension means good springing. Hence, we come to the definition of a spring as "an elastic body which may be distorted under stress, but which recovers its original shape when the stress is removed". Suspension springs are devices which store and release energy, and their utility lies mainly in the way that they increase the time in which the road shocks are absorbed and released, since dissipating them reduces or eliminates their objectionable qualities. Hence in the design of springs a slow frequency of oscillation is desirable, and this in turn requires a generous static deflection. Static deflection is the distance a spring deflects or moves from its free position to the loaded position, this deflection being the main factor controlling the period of the spring.

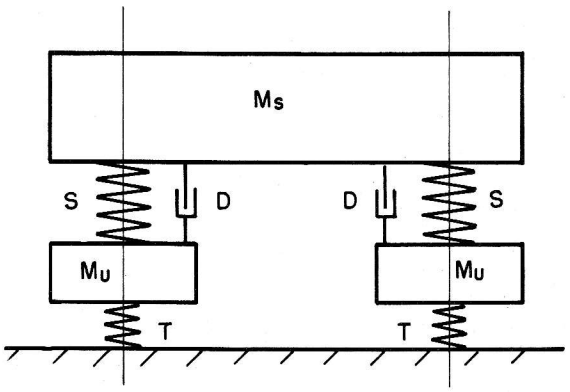
Associated with the term 'suspension system' is the motion characteristics of a vehicle; and the major factors controlling the rotation of the sprung mass about its center of gravity are spring rates and mass distribution. This combination is referred to as the mass-elastic system. Notwithstanding these factors the motion must be controlled by suitable damping.

THE SUSPENSION SYSTEM

The simplest diagrammatic representation of the suspension system which will reproduce the basic action is shown in Fig 1. It shows the relation between the sprung mass, suspension spring and damper, unsprung mass and tire stiffness.

The sprung mass (m_s) is supported by spring and tire in series. Its free frequency is known as the primary motion. The unsprung mass (m_u) moves between spring and tire against their combined stiffness in parallel.

The free frequency of its motion (or free period) is the secondary motion or 'wheelhop'. The primary and secondary motions are so far apart as to be considered independent of one another. However, both separately produce the vertical acceleration of the chassis which determines riding comfort. Chassis acceleration due



Ms - Sprung mass

Mu - Unsprung mass

S - Suspension spring

D - Damper (shock absorber)

T - Tire

Fig 1 - Schematic diagram of suspension

to the primary motion is proportional to the primary motion and is small. On the other hand, chassis acceleration due to the secondary motion is much greater.

It would seem, then, that to reduce wheelhop (secondary motion) the unsprung mass should be reduced. This is not quite so, for in general, a vehicle with larger unsprung mass feels less harsh but more shaky whereas a vehicle with smaller unsprung mass feels more harsh but less shaky.

The reduction of stiffness of the tire would greatly reduce wheelhop and at the same time increase the effectiveness of its damping. Hence there is an improvement of harshness and of shake. However, a more flexible tire radially means a more flexible tire laterally and therefore steering control becomes poor.

Wheelhop may also be reduced by a change in damping. At the present time, the shock absorber handles the damping. An increase in damping in the shock absorber results in a reduction of amplitude of the secondary motion and a related increase in the forces fed into the chassis during the initial stroke. There is, therefore, an increase of harshness but less shake. Damping in the form of a harmonic balancer built into the unsprung mass is feasible, but the necessary added weight would be expensive and impractical on today's market.

Although the motion considered above is vertical motion, one must not forget the unlimited field of study that is provided by shakes in other directions. We might also mention, but not delve into, the three primary suspension problems: the relation between sprung and unsprung mass (as dealt with above), steering, and stability.

Let us now compare the various types of suspension currently in use.

THE LEAF SPRING

The leaf spring is the oldest form of automotive suspension. Theoretically it is a beam of uniform stress, its leaves being so proportioned that the stress is the same throughout the length of the spring. (Fig 2) There is, however some excess material in the actual leaf spring.

Although the leaf spring is a complete unit in itself, that is, it can serve as a radius rod and a torque arm combined without the addition of weight or parts, its energy-capacity in bending is less than steel in torsion.

The steel leaf spring is fairly cheap per pound, but is criticized not only for being too heavy, but also for excessive inter-leaf friction. The designer, then, has to take his choice between thick leaves, which result in a heavy stiff spring, or many thin leaves which make a lighter spring but introduce an added amount of

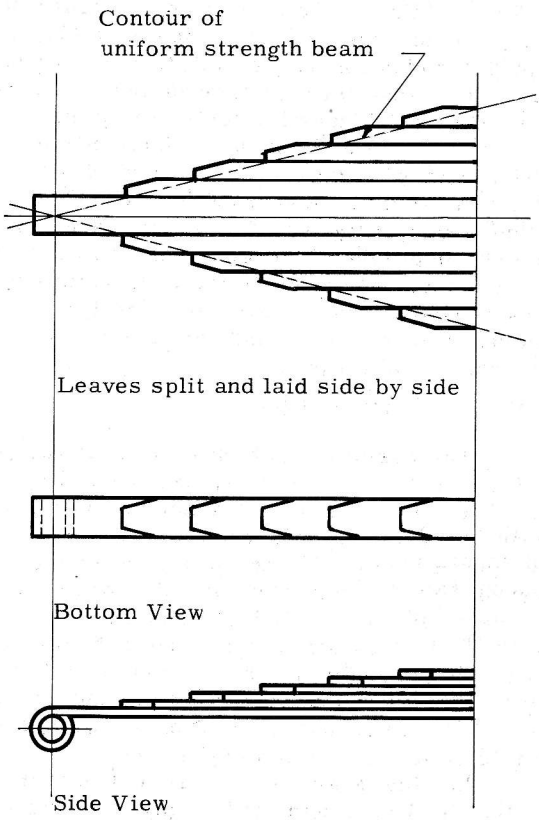


Fig 2 - The Leaf Spring

inter-leaf friction. Inter-leaf friction may be greatly reduced by the addition of metal spring covers loaded with lubricant, or by liners of wax-impregnated paper or cloth between the leaves, or by special fabric, plastic, rubber or metal alloy inserts at the leaf ends.

There is also the wide plate spring with relatively few leaves, very wide and sometimes quite thin.

THE COIL SPRING

The coil or helical spring in automobiles is not new, having been used around 1900 in some of the early light cars. They did not become popular again until the revolutionary changes in car design which came with knee-action, tripling flexibility at the wheel, and with the changes in the weight distribution effected by moving the engine and the body far forward. These changes resulted in the characteristic 'horizontal ride' of today's automobiles.

Coil springs are now a precision product, made of carefully rolled alloy steel, centerless-ground to insure uniform flexibility. The bars are hot-coiled and heat treated in specially de-

signed machines and the springs are all shot-peened. Although the production of small quantities of any one type of spring is costly, coil springs lend themselves readily to mass-production. Considerable capital investment in special furnaces, machinery and tools is required.

The steel coil spring is highly efficient in the use of material, as per pound of steel, it will store approximately 1300 inch-pounds. Another good quality is that it can be made to give a long amplitude of movement and a long range of softness. No attempt is made with this spring to serve more than one purpose, therefore it requires linkage, guides and bearings to maintain the correct wheel path.

THE TORSION SPRING

The torsion bar, which began to attract attention in the late thirties, like the coil spring is efficient in the use of material. Compared with the leaf spring, which will store a maximum of approximately 450 inch-pounds of energy per pound of steel, the torsion bar will store approximately 1400 inch-pounds. No attempt is made with the torsion bar to serve more than the one function of providing a spring. As is true for the coil spring, the torsion bar can be made to give a greater amplitude of movement and greater range of softness than a leaf spring.

In this suspension, vertical movement of the wheel is transmitted through a crank arm to a shaft running transversely under or through the chassis of a vehicle. Since the crank arm is rigidly attached at its ends to both the wheel axle and to the shaft, and since the shaft turns freely in a bearing at the crank end while the opposite end is anchored to the vehicle, vertical movement of the wheel applies a torque to, or twists, the shaft. The transverse shaft is, therefore, simply a rod-spring designed to resist the torque, or twisting moment, of the applied force and then to untwist and return all components to normal position.

The torsion bar, because of its low rate, provides a soft ride where vertical wheel travel is low, that is, on fairly smooth terrain. If, however, the terrain is rough and the amplitude of the wheel movement is increased, the ride will not be smooth. It is necessary then, to use some method to absorb the force of rebound. Double-acting shock absorbers are used and much of the force of rebound is absorbed by the reverse action of the shock absorber.

The faster the vehicle, the more important reduction of the unsprung mass becomes. The torsion bar suspension has done much to reduce the unsprung mass by removing the spring from the axle while at the same time providing great shock-absorbing capacity.

RUBBER

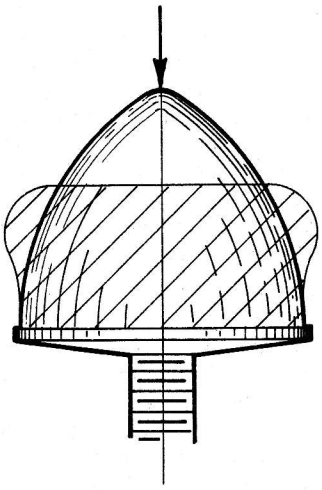
The use of rubber in suspension has distinct advantages.

There are three major reasons for a closer look at this material. First, considerably more energy can be stored in a pound of rubber than a pound of steel; second, rubber springs can be so designed that the rubber acts not only as a spring but as a means of locating moving parts, avoiding the weight, cost and complication of locating beams and linkages; and third, its resilience, or ability to deform under loads and then return to its original form, is extremely good.

Rubber has other valuable properties. It has almost no initial friction. It is silent in operation. Its flowing or flexing (within its fatigue limits) causes substantially no wear. No lubrication or care is required. It is resistant to all of the things a vehicle spring is exposed to. Finally, its ability to absorb the most minute shock and every degree of shock from there on up, is most valuable.

Rubber as a suspension material also has some disadvantages. Rubber is not a good conductor of heat and all energy absorbed through

Compression Bumper



Characteristics

Great variation in distortion of various elements

Low stroke

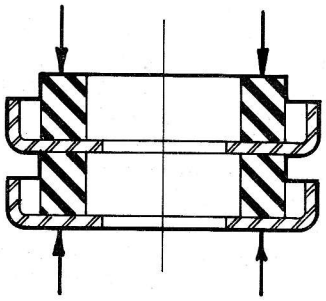
Very limited in guiding or locating functions

Variable rate

Large exposed surface

Fig 3

Compression Ring



Characteristics

Fair uniformity of distortion

Wide range of stroke

Requires a guide

Variable rate

Large exposed surface

Fig 4

hysteresis in the rubber is absorbed as heat. Applied to the working stroke only, rubber with 90% resilience will dissipate approximately 10% of the energy stored and returned in each working stroke. This heat must be removed from the rubber itself and dissipated. Failure may result from blow-out because of internal heat even though the surface might be relatively cool. However, suspension springs will not ordinarily flex through sufficient amplitude or at sufficient frequency to make heating a serious factor.

At low temperatures rubber becomes stiffer resulting in the lower setting of a vehicle. This effect is not large or serious. There is also a tendency for all rubber springs to creep or to take on a permanent set in early service. This increases static deflection by approximately 5% during the first few days that the rubber is loaded. After this the creep continues at a much reduced rate requiring no adjustment over long periods.

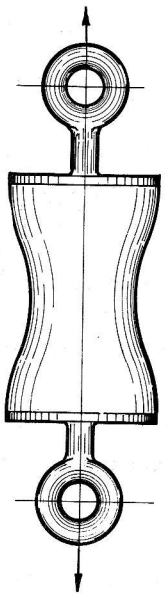
(a) Rubber in Compression (See Figs 3 & 4)

The obtaining of uniformity of distortion being the problem in the use of a rubber spring, we can dismiss this method of usage. Other limiting factors in compression type springs are; first, it requires separate locating linkages; second, it has small amplitudes of movement; and third, it requires more rubber per inch of deflection than other methods of using the material.

(b) Rubber in Tension (See Fig 5)

Rubber in tension is much more practical than rubber in compression. A uniform stress and a wide range of deflection may be obtained. The chief objections are that this type of spring usually requires locating linkage. There is difficulty in attaching the ends and there is a relatively large amount of exposed rubber surface as compared with the total volume.

Tension Spring



Characteristics

Uniform distortion

Wide range of stroke

Usually requires a guide

Large exposed surface

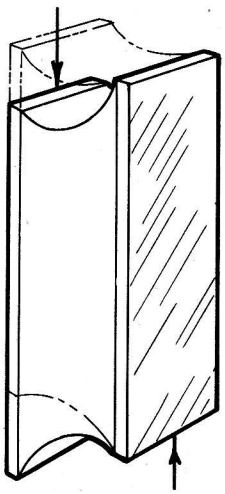
Fig 5

(c) Rubber in Shear (See Figs 6 & 7)

The third usual application is rubber in shear. The simplest form is a flat sandwich of rubber bonded to two steel plates. In this manner, uniformity of stress is obtained except at the ends. This exception is a serious problem. The simple process of wrapping the rubber in a circle and joining the ends eliminates high end stress and allows higher unit stresses for a given amount of rubber. This cylindrical shear rubber unit is known as the "torsilastic spring"

The torsilastic spring is comprised of a central shaft or tube and an outer cylindrical shell with a cylinder of rubber between and vulcanized to both tubes. Either the shaft or the shell is held stationary and the other rotated by means of a torque arm which is the wheel support arm.

Flat Shear Spring



Characteristics

Uniform stress except at ends where stress concentration gives trouble

Low stroke

May form its own guide

Medium exposed surface

Fig 6

Such a spring performs its own locating function and needs no bearings as it resists tilting, axial and radial deflection about its normal axis. Hence it is best used as the locating means for the axle as well as the springing member. This application permits the use of conventional axles with very slight modifications.

An important advantage in cushioning impacts and reducing noise level and harshness is had in the small flexibility of this spring in resisting forces other than rotational, coupled with the use of rubber shackles on the lever arm, thus interrupting the metallic path from the wheel to the chassis.

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Just how are these types of suspension applied in design? We may find vehicles incorporating semi-elliptical springs front and rear or torsion bars used at the front or rear or perhaps at both ends of a vehicle. All four wheels may be independently sprung using coil springs, a combination of coil springs and leaf springs or torsion bars (such as the German Jeep or Volkswagen). The torsion bars as used in the front assembly of the Volkswagen are four flat steel strips welded together at the ends with a hole in the center for a lock-nut which limits twisting and side to side movements.

In the military field, successful application of the torsion bar to the suspension of tanks and similar multi-wheel vehicles has been made, while in trucks, a semi-elliptic spring is still universal. Early in World War II, light and medium tanks had the simple and reliable volute spring bogie suspension. Later, individually sprung wheels were substituted and consequently the torsion bar suspension, occupying no inside width on tanks, came into its own.

The PzKw III tank produced by Daimler-Benz, and an experimental American Medium tank T20E3 utilized torsion bar suspension in connection with individually sprung wheels. In the fall of 1942, as a result of the German encounter with the Russian T-23, the PzKw V or the Panther was developed, employing torsion bars with interlaced wheels for the first time in a fighting vehicle. The design weight of the Panther was 30 tons but eventually actual weight was nearer 42.

Rubber in torsion may be found on the German Hanomag front end which consists of two wishbones at each side which with the rubber units swing about a frame mounted king-pin in similar fashion to the Chevrolet Dubonnet units.

This torsilastic spring, a constant level device, is by no means something new as more than 500,000 have been installed in American military vehicles alone. The American tracked

Torsilastic Spring

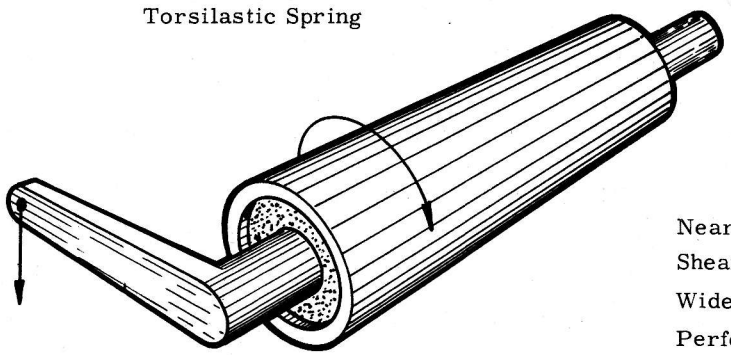


Fig 7

Characteristics

Nearly uniform stress

Shear ends of Fig 6 eliminated

Wide range of stroke

Performs locating function excellently

Small exposed surface

landing vehicles, the LVT 4 and 5 are good examples of the successful application of larger rubber springs. These "Water Buffaloes" and "Alligators" have 22 single wheeled, rubber tired suspension wheel assemblies supporting the vehicles, each spring capable of supporting a weight equal to that of an average size passenger car.

On civvy street, the Twin Coach Co states that it obtains excellent results from torsilastic springs. There are several good reasons for their use, one being that in spite of the extreme conditions in loading that a bus is subject to, a rubber spring can be designed to meet this variation. Others are that the spring life is extended considerably, the system will not squeak or rattle, resistance to swaying or rolling of the vehicle is greater than for any other suspension with the same spring rate without using special means to prevent it, the system absorbs shock or impact from any direction and there is no danger of sudden failure. No lubrication is required and actually, on a normal curve, the vehicle will tip inwards rather than outwards thereby making the passenger considerably more comfortable.

It will seem that the torsilastic spring has some very desirable characteristics. Complete familiarity with the latter coupled with mechanical ingenuity in the application of the spring should result in wider fields of successful design.

But it would be wrong to state flatly that one type of suspension is better than another: each has its advantages and disadvantages. Design is in most cases a matter of compromise, and engineers will continue to search, in this field as in others, for the ultimate ideal.

Torsion bar suspension is used on M24 Light Tank.

THE WESTERN COMMANDER

We regret to announce that THE WESTERN COMMANDER, the official Army newspaper for Western Command, serving AF and RF units in Alberta, BC and the Yukon, discontinued publication as from December 31st, 1951.

The paper was founded in June, 1946, as the DISTRICT NEWS, and from that day on was published monthly under the editorship of SM (WO1) R. J. Woolard. To SM Woolard and to his associate editor for the RF, SM (WO1) Keith Wiles, must go the major credit for a lively and up-to-date publication whose arrival was awaited with interest by all ranks AF and RF in Western Command.

The reasons for the decision to discontinue publication are "steadily rising costs and mounting technical problems." The Western Commander was operated on a non-profit basis, and depended on advertisers and subscribers to cover its operating charges.

We, ourselves, found the news contained in this sixteen page monthly of considerable help to us in keeping in touch with activities in Western Command not otherwise reported. On behalf of all past and present members of Western Command, we would like to thank SM's Woolard and Wiles for their more-than-creditable editorial staff work.

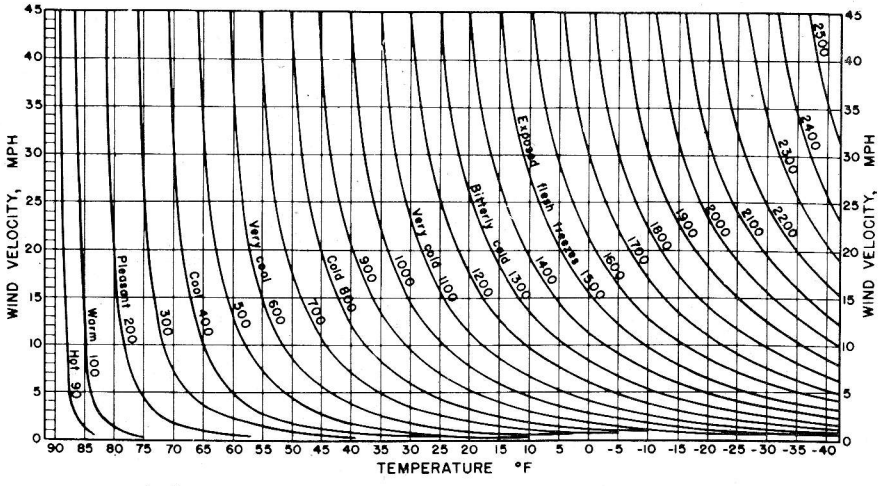


Fig 1

WIND-CHILL FACTOR

Author: "Frost-Bites Anonymous"

This awesome, (perhaps awful is the word), scientific commodity is something that I feel should be disposed of at auction to the lowest bidder. Perhaps it could be shipped to the Russians, only rumour has it that they have ample quantities stock-piled in Siberia. In fact our meteorological weather-diviners claim most of our supply comes from there, free-gratis. Now I know what is meant by the 'cold war'.

About all I know concerning windchill factor is that it is unsanitarily chilly (for the unconstipated). In the Arctic it is a major factor to be reckoned with by all heat-engines, including human (and sub-human) bodies. Note the terrified expression in the eyes of our hero in Fig 2 as he wonders if by any chance he is still over-exposed. "Watch that nose, Buster, it makes a darn poor windbreak".

Essentially, windchill factor is temperature versus wind velocity, with a few other multipliers stirred up in the stew to make it more confusing so that it emerges as a three or four digit number. If you need this figure to tell you when you are cold, may I refer you to the story of the old Indian Chief who carried a white man's watch to tell him when he was hungry.

Figure 1 is a windchill chart and any one curved line, representing a particular windchill figure, may be achieved by many varied combinations of temperature versus wind-velocity. For example, a factor of 1300 (bitterly cold) may result from a temperature of +25°F with a wind velocity of 45 miles per hour (top of chart) or by a temperature of -45°F with a wind velocity of 2 mph (where the 1300 line goes off scale at the bottom right hand corner of the chart). Many in-between combinations form the center curvature of the graph.

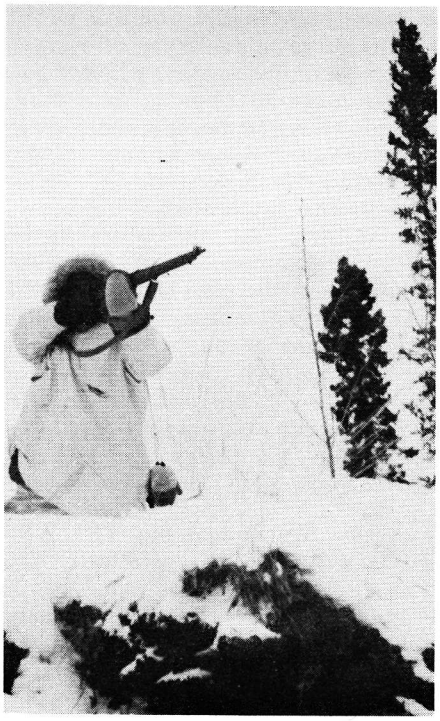


Fig 2

I understand that windchill factor is calculated on the rate at which a square meter of exposed skin will radiate heat under the above-mentioned conditions; a thought too horrible to contemplate soberly. The need for considerable

quantities of suitable anti-freeze is clearly indicated to prevent rupture of the radiator (or radiatress). Perhaps that was the only way science could get the necessary volunteers.

During the war the Luftwaffe experimented with the defrosting of high-altitude aircrews by multitudinous methods ranging from immersion in hot baths to bundling in a blanket with two blondes, but that's another story.

Personally, even under the most trying conditions, I managed to keep my skin exposure down to about 9 square inches but that was the absolute minimum or the issuing of a new parka would have been necessary to avoid offending my neighbors, although after a week on the trail such fastidiousness would probably be considered superfluous.

In theory they claim that an exposed radiating surface tends to warm up the layer of air next to it, which then blankets the surface and reduces heat loss. However, the presence of a wind results in this layer of air being constantly replaced by fresh cold air which requires reheating all over again. Naturally this imposes considerable strain on the radiating surface and any anatomy attached thereto.

A windchill factor of 1400 to 1500 is considered dangerously cold as any exposed flesh will freeze very rapidly no matter how warm the rest of the body may be.

During Exercise Sundog 1 in the Fort Churchill area it is rumoured that the windchill reached 2800 one day (or maybe it just felt that way on emerging from the sleeping bags). However it did most definitely reach 2650 on several occasions. On consulting my chart (Fig 1) I found this was off scale so I then consulted my service chart to see if by any chance I was pensionable yet. Not having sufficient service I added a few lines to extrapolate the windchill chart and my guess resulted in an equivalent temperature of -95°F below if the wind had been only 2 mph. (it wasn't)

A relatively calm day, Churchill style, usually has about a 25 mph wind so when you are leaning at an angle of 45° against the customary Arctic zephyr don't waste too much sympathy on the residents of the Yukon where the temperature may reach -70°F below in the deep windless valleys. Those boys are in the banana-belt compared with the barren lands where they claim the windchill can even freeze the nuts off a jeep's cast-iron differential. Metallurgical strain, no doubt!

Briefs from the Maritimes

The following news items have been received from our correspondent for 6 and 7 Coys RCEME.

A unit parade was held recently at which five Canadian Decorations were presented to various members by the Command EME. Those receiving medals were Lt C.H. Gladwin, WO1 F. Moore, WO2 MacLellan, Cpls Cotton and Cleveland.

A small AWD under Sgt C.E. Kline did good service at the Base Area Moncton, NB, during the past month in connection with the recent winter exercise in Eastern Command, Sundog III.

We welcome back to the Wksp and Company, veterans from 25 Bde RCEME who have completed their tour of duty. They appear none the worse for wear, and some promotions are noticed within their ranks.

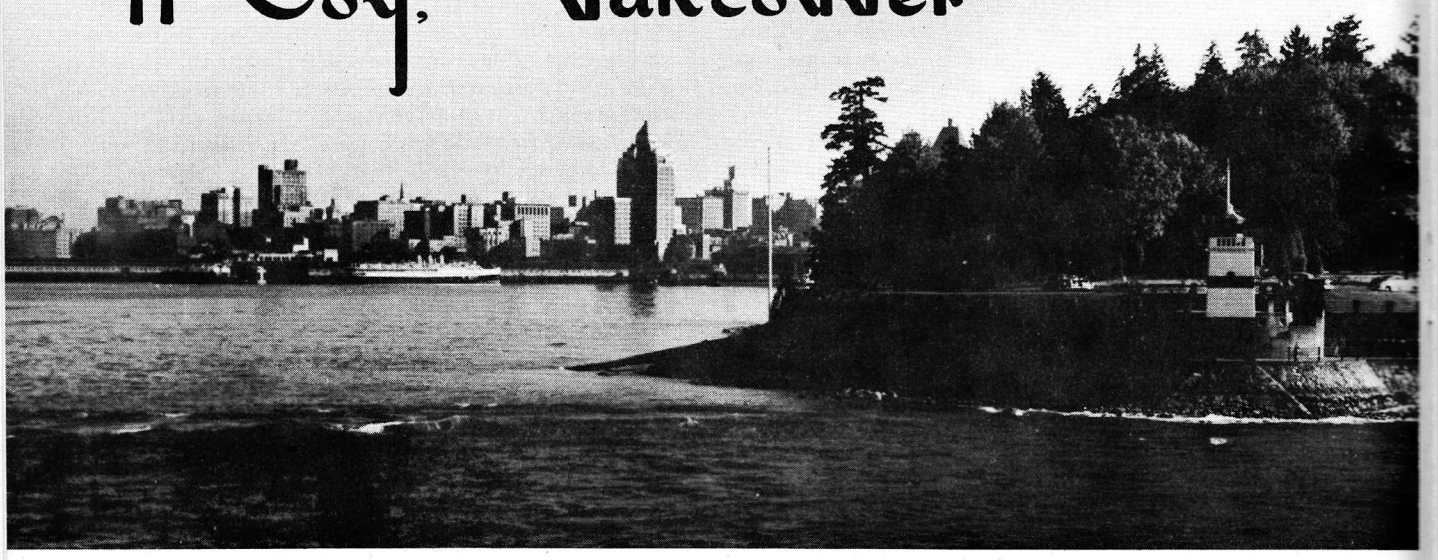
A 'project' is under way at 200 Base Workshop whereby, eventually, a very excellent Corps sign will be produced for the RCEME School, complete with lights and a high standard of trade skill.

Eastern Command RCEME are looking forward, with some qualms, to a very heavy summer training load as it affects repairs. Heavy AA and Light AA plus armour training, along with Technical Cadet Camp, is taking place within the Command. The usual CD training, Reserve and Active, also is slated. The numbers of soldiers left behind at the shops this coming summer will be few indeed. Reserve Force Camp this year is at Camp Utopia, near St. George, NB.

An effort has now been made to start a company in Newfoundland, our newest Province, and at present a very small detachment is being operated there as an increment to 6 Coy RCEME Halifax. Single men are required for it, as accommodation is at a premium and family men must leave their families 'on the mainland'.

*Epistemology– The theory or science of the methods and grounds of knowledge, especially with reference to its limits and validity.

11 Coy, Vancouver



Paper work has always been a headache to Reserve Force units (isn't it also to the Active Force) but insofar as the paper work required by RCOC and RCEME is concerned, the Reserve Force artillery units in BC Area decided to do something about it.

Realizing that the various forms asked for have a definite place in the every day efficient operation of RCOC and RCEME unit, an administrative exercise named "Exercise Demand" was conducted by the Reserve RCA units, Sunday, 2 Dec 51.

The units taking part were:

HQ 5 AGRA (AA)
8 AAOR RCA
15 Fd Regt RCA
24 HAA Regt RCA
65 LAA Regt (Ir Fus) RCA
102 CST Regt RCA
75 HAA Regt RCA

The purpose of this exercise was to familiarize artillery personnel, particularly commanders and QM staffs, with the administrative side of the two services.

The morning was spent at 17 ROD and the afternoon at 214 Base Workshop RCEME.

Commander HQ 5 AGRA (AA) Brigadier A.E.McB. Bell-Irving, his officers and men were welcomed by Major J. J. Garnett, Area EME who briefly outlined the history of RCEME, the new terminology of our repair system, inspection service duties of the new Reserve Force servicing section and the RCEME organization within BC Area.

Following the Area EME's welcoming address, Capt H. McManus outlined RCEME responsibilities and accounting procedures. This lecture included:

(a) RCEME responsibilities
(b) 2149 procedure from the time the unit originates it until repaired equipment is returned. A diagram was used to trace the channel followed by 2149.
(c) The 2149 and its relation to workshop load planning
(d) Repairs in situ
(e) Backloading procedures
(f) PCCs, Misuse Reports and Equipment Failure Reports
(g) Use of CAEMEIs.

* * * * *

RCOC traced an Ordnance indent from the time it is raised by the unit until delivery of the stores is finally completed. While tracing the path of the indent they also brought out the numerous problems that Ordnance run into due to insufficient or incorrect information on the indents. After the lecture, the personnel were conducted on a tour of 17 ROD, being broken up into syndicates in much the same manner as we did at the workshop.

The meeting was then thrown open for questions, which were numerous. Following question period, coffee was served, followed by a tour to the workshop and its various sections.

Brigadier Bell-Irving on behalf of his officers and men expressed appreciation for the time spent by personnel of 11 Coy RCEME

in helping to make the exercise a success and said he felt that all had learned a great deal and were leaving with a much better understanding of why the small amount of paper work required by RCEME and RCOC from units is so essential.

The exercise was brought to a most successful conclusion at the Officers' and Sergeants Messes.

Headquarters, 15 Inf Bde, under command of Brigadier D.M. Clark, held their Summer Camp conference in Vancouver on 19-20 Jan 52. 11 Coy RCEME participated in part of this conference.

On Sunday, 20 Jan 52, the morning was spent at 17 ROD where unit accounting procedures were outlined followed by a tour of the Depot. In the afternoon the conference moved to 214 Base Workshop RCEME where the wraps were taken off the mystery which seems to surround the paper work required by RCEME from the various units.

Major J.J. Garnett, Area EME, and OC 11 Coy, welcomed Brigadier Clark and his officers. He outlined briefly the history of the Corps, its various responsibilities, the repair organization, the repair organization within 11 Coy, and the responsibilities of the Area EME.

Following this the meeting was turned over to Capt H. McManus, Adjutant 11 Coy, who outlined the RCEME accounting procedures within the unit and its relationship to the workshops, including 2149 procedure, backloading, Inspections and repairs in situ, CAEMEIs, PCCs, Misuse Reports, etc.

The meeting was then thrown open for questions which, incidentally, were quite numerous and covered almost all phases of RCEME operations. After these were answered, apparently to the satisfaction of all concerned, coffee was served followed by a tour of the workshop.

* * * * *

An indication of the success of this gathering may be seen in the letter received by the OC 11 Coy, from the Brigadier:

Officer Commanding
11 Company RCEME
VANCOUVER, BC

SUMMER CAMP CONFERENCE

1. Please accept the sincere thanks of the Commanding Officer and staff of HQ 15 Inf Bde, and the officers attending our recent conference, for the fine co-operation received in assisting us to hold the event.

2. Officers attending the conference were unanimous in voicing the value of the conference, and the information gained while here.

3. Much of the value would have been impossible without your efforts on our behalf.

(DM CLARK) BRIGADIER
COMMANDER
HQ 15 INF BDE
CANADIAN ARMY (RF)

Where are they?

JANUARY QUARTERLIES, sent to the following RCEME officers, were returned with the postal notation, "addressee unknown". Can you supply a later address?

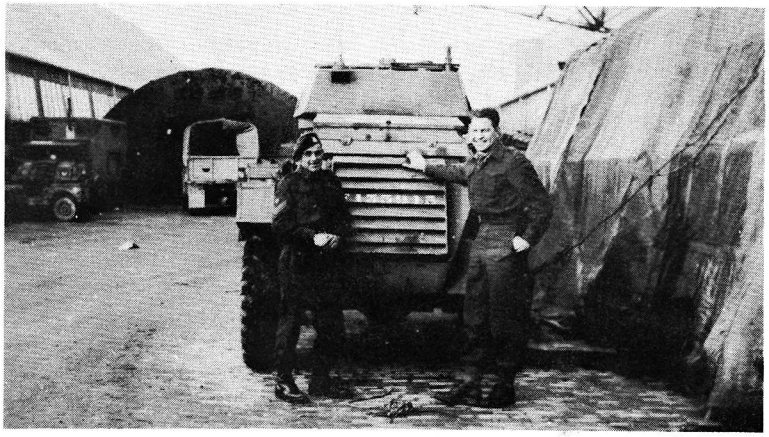
Capt AKC Allen, 307 Dovercourt, Ottawa
Capt RF Bartlett, 1540 Guy St, Montreal
Maj ES Barton, 2728 West 16th Ave, Van BC
Capt TE Bradshaw, 147 Garden Ave, Toronto
Maj HP Cadario, 240 Northcliffe Blvd, Toronto
Lt MA Capper, 314 Main St, Hamilton
Maj JA Charnetski, 328 Goulburn Cres, Ottawa
Capt DR Duguid, 5662 Chancellor Blvd, Van BC
Lt RM Freeman, 2095 Lincoln Ave, Montreal
Lt OS Gislason, 1020 Champfleur, Three Rivers
Maj D Gordon, Victoria, BC (PQ
Lt DA Gray, 2 Gibson Ave, Toronto
Capt JS Gray, 1-1255 West 12th, Vancouver BC
Capt J Hargraves, Massawippi, PQ
Capt RCS Hawkins, 39 Tech Sqn, Calgary, Alta
Lt RG Johnson, 78 Indian Grove, Toronto
Capt JT Kerfoot, 60 Lowther Ave, Toronto
Lt-Col CW King, 2236 Florence, Victoria BC
Lt AJH Lamarche, 7314 Bordeaux St, Montreal
Capt WGC Lawrence, 88 Broadway, Ottawa
Capt JP Lundreville, East Angus, PQ
Capt RD MacKimmie, 2169 Brulard, Sillery, PQ
Maj GL Marrotte, 2676 Levesque Blvd, St Vincent (de Paul RR 1
Capt WHO McLaren, 614 Niagara St N, Burbank, (Cal, USA
Maj PC Neil, 25 Tech Sqn, Arvida, PQ
2/Lt JAG O'Donoghue, 140 Irvine, Westmount, PQ
Capt HAG Kingsmill, Thornhill, Ont
Capt HA Reeves, 9 Oakdene Cres, Toronto
Capt NF Retallack, 8231 De l'Epee Ave, Montreal
Lt JM Roxburgh, Foot Rogers St, Van, BC
Capt MK Strang, 569 Broadway Ave, Leaside, Ont
Capt TE Swann, 557 Castle Ave, Winnipeg, Man
Lt GA Urmston, 1348 Robson St, Van, BC
Capt FE Wilson, 281 Division St, Oshawa

"OUR ASSEMBY LINE"

This may bring back memories to many of our readers -- Major J.B. Annand among them -- who were with 3 Cdn Inf Troops Wksp.

We are privileged to print a short history of this unit exactly as it appeared in the final issue of the unit paper 'Our Assembly Line' of 19 June 1945. This paper was kindly loaned to us by Mr. P.F. Kestner, Officer-in-Charge Victoria Island Plant, Dept Public Printing and Stationery Ottawa, an ex-S/Sgt of the unit.

It may be of interest to other ex-members that Major Annand, who commanded 3 Cdn Inf Tps Wksp throughout its whole life, lives at 94 King St West, Oshawa Ont.



Above: S/Sgt J.M. Lowry and Capt S.L. Erwin, Veghel 1944.
Below: Recovering vehicle from canal at Veghel.

THE STORY

3 CITW was an outgrowth of 1 & 2 Army Ordnance Wksps, many members of both these shops formed the nucleus under Major Annand, who has been the O.C. ever since. So the story goes, our first locale was a very pleasant estate known as Tillingborne - from where we moved to Ardingly, where the unit as we know it today began to take shape under the eagle eye of Capt Home. Our activities there, for most of the gang, were made up of short week-end dashes to London or Brighton, bus rides to Haywards Heath East Grinstead. The local pub and village dance across the way where we did the "Hokey Pokey", "The Val and the "St. Bernard's Waltz" with the natives twice weekly were very popular.

In November '43, the unit moved to Southampton, the memorable port that claimed us for well onto six months. None of us will forget Foundry Lane School, the Anchor Hope, Shirley Warren, the Guildh or our many friends and the happy days we spent with them (mostly rushing around looking for a bed

In April '44, Invasion rumours eventually were officially recorded in Orders and we moved to Lo wood. It was just a short jaun from Winchester and Southampton the woodsy life and comparative isolation gave us the feel for 'out-of-door' life we were to l in the wheat-fields of Normandy. How grateful we were for the us the showers, the entertainment the baseball games with our co American friends next door. T shrapnel from the Ack-Ack guns many a thrill as it bounced fr tree to tree. It was here tha unit officially went over to R

On the night of June 5th, of us were at the show listeni 'The Voice' twang out "I Could Sleep a Wink Last Night") we l the first formations of Parat going over and over - a whole of skies full of it - in the we knew it had begun. For us route march; from the hilltop watched the clean silver wing going over and returning in a less cky. Everyone was sayin "Let's get in there, get it d with, and get home". The bac boys are working on that "Ho business, now - we hope!

Three weeks later we were in France, but not without spending a harrowing week in transit camps, waiting and listening for our movement order that might come at any moment. And there were the first Buzz-bombs. For a while it was almost quieter in Normandy. We felt for those that had to remain behind to endure them.

The trip over on LST's was made in perfect weather without incident (it rocked a bit), the landing was dry (it made our waterproofing look rather silly) - we 'dug-in' on our first field June 27th, near Delivrande, where the "Rodney" was firing over our heads at very regular intervals.

In the meantime, our "Second Flight" (reinforcements for the "semi-D Day Heroes") came roaring into the scene via the good old "S.S. Empire Heywood", over the beaches in a splash of enthusiasm (this time the water-proofing proved proved!), and entered our portals on "Bastille Day", July 14th.

The guns just over the road gave us some sleepless nights, but if you couldn't sleep there was always the Ack-Ack show, those lazy lethal tracers never failed to fascinate. St. Aubin, Langrune, Benysur-mer and La Folie are names pregnant with experience, dust, airspectacles and close calls - calvaqus, wine, dysentry, flies, wasps and of course "les moustiques".

La Folie in particular is seared in our memories. It was here that we encountered enemy air marauders almost every night. We learned to recognize the whine of anti-personnel shrapnel, to fear the flares and the strafing and to dig (but deep). If these were our most trying moments, then they were our most fortunate ones. Bombs that should have inflicted serious damage failed to explode. Each and every morning brought news of casualties suffered by our neighbors, but our good luck held - it held long and it held well.

After Falaise, the war ran away from us, then came the St. Sylvain pine-woods for a short time, followed by the long chase through France - cheering crowds lined the streets of every village - and "papa" always smokes, it seems.

THE STORY (cont)

Harcourt and St. Andre proved to be pleasant egg-producing areas. 'Many are called but few are chosen' - we mount the Guard of Honour while Gen Crerar gave Rouen back to the Mayor, no one seemed to want to speak their own language - what's French for Blanco? Never knew there were so many National anthems!

It's now Sept 14th and we're all packed up and rolling to Campagne-les-Hesdin, eggs were plentiful and on Sundays the villagers made a promenade of our lines. It was interesting for them to see how the other half lives. Their interest in the showers was particularly keen and embarrassing for some. Sept 24th we visited Vimy Ridge.

Oct 1st and we make the long trip to Antwerp where we lived happily ever after until the buzz-bombs and the mysterious rockets got much too close for comfort. In fact on the 30th of October, a buzz-bomb landed in the middle of the workshop area, damaging Instrument Shop Equipment more that somewhat, but none of our boys were injured seriously and no one killed. There were several close calls after that - our hardest job was to keep the Billet windows on, and get to sleep. Before leaving we held our first dance on the continent. CWAC's, Telephone girls, and friends (?) were our partners - a successful party but a bit noisy, much zigzag.

On Nov 27th, we moved to "Our Town" - Veghel, Holland. Though things were pretty dull our three months stay had its moments. Our Civvy billets varied in comfort - the people after a time became very friendly. During the Ardennes breakthrough we had those delightful stand-to's at 5 A.M. The weather was wet, damp, cold, foggy, it rained, it snowed, and it froze. But there was fun too, we did some skating on the canal. No one on guard duty ever failed to run into the Civvy Factory patrol characters - "Patrolie von da factoreee" and the subsequent monologue that always went like this:- "Voor da orloch, plaanty sport in Hollands, ya - plaanty. Och! In Mai is finis saicher, dan plaanty sport, ya, dan plaanty Geneve - plaanty zigzag."

Top: Gen Crerar and the Burgomaster of Rouen taking the salute after the General presented a plaque to the people of the city.
Centre: Inspecting the Guard of Honour, men of 3 Cdn Inf Tps Wksp, Major Annand, Gen Crerar and the burgomaster.
Bottom: Workshop vehicles lined up in Hilversum before they were turned in at the Arnhem Airport.

Tues June 19th, 1945

Dec 24th, we held a Christmas party for the kids - "Doc" was a convincing Santa Claus, the kids loved the clowns and the food particularly the oranges - the perspex medallions are still treasured souvenirs. Our own Christmas dinner was very successful. New Year's Eve was very quiet indeed except for rounds and tracers shot into the air.

On Jan 1st '45, Jerry planes flew low over Veghel in strength, four were brought down but it gave us a bit of a jolt. The bedrooms seemed to get colder and the power went off in billets every night at 10:30 (if you were lucky). We saw a great many old movies when the machine was working. Imported nurses drew the U.K. leave lottery with howls of delight, they were thanked in very affectionate terms.

Feb 3rd saw the birth and first issue of "Our Assembly Line" - our 'baby' is now ready to leave for home. Our bedrooms seemed to get colder and damper. Our Hockey team played its first game, in Tilberg - Score 1-1. There was the smoker with good Belgian beer and Capt Williams 'mc-ing' the Bingo. "Sinbad" sang, still under the spell of some Parisian enchantress. The roads were jammed with vehicles - the build-up for the big push. The first leave party for the U.K. got under way. Freight trains began to arrive in Veghel.

On Mar 6th we left our winter quarters for the Dutch Barracks in Vught. The Jerry ammunition dump in the rear of our quarters blew up the same day, killing four Poles and knocking out our lights. Our friends the Buzz-Bombs came over in droves, night and day. Spring made its first impressions. The Cdn Army shows in s'Hertogenbosch were tops. The big news was the Ramagen bridgehead.

On Friday April 6th, we rolled off to Germany. The devastation in the Reichwald and in Cleve was absolute - shades of Caen! Much surprise at the liveable quarters in the XOX Biskuitfabrik. Lots of work kept us at it four and five nights a week. Staghounds were the big stuff. This was the climax of our RCEME career; we knew it, and responded to it. On the 21st we made the move to Groningen. Civvy billets were too much to live up to for some, showers were very popular. Civvies were selling the mortgage for a cigarette. Huge crowds of spectators watched guard

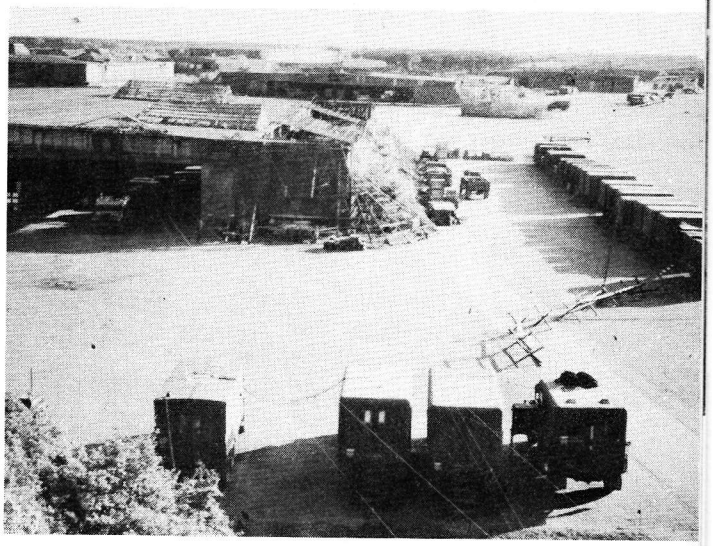
THE STORY (cont)

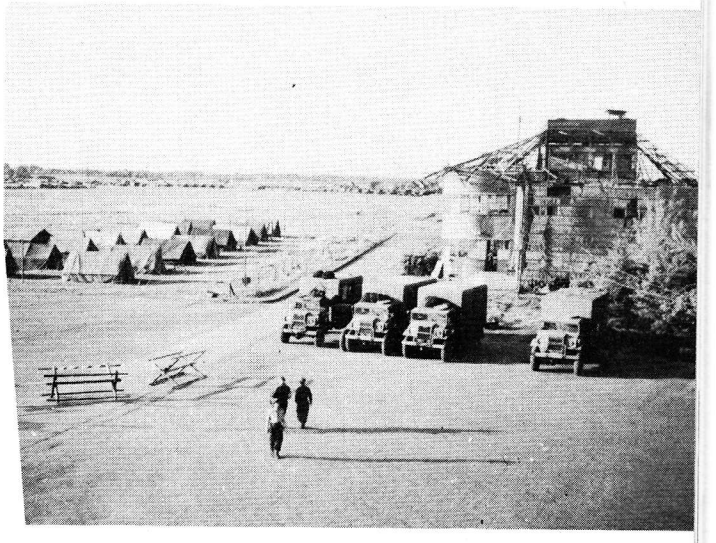
mount every night. Canadians were very popular. Gals for all and very pretty too.

On May 3rd we held a Dance at the Astoria in the 'Kijk in t'jat straat'. The evening of May 4th brought news of the German Surrender in Holland, Denmark and N.W. Germany. The town goes wild and stays that way for a week - celebrations on every street corner - plaanty Geneve. On VE Day the unit held another big Dance and the following day we moved to Oldenburg. Very signals, coloured smokes, searchlights and tracers helped us let off steam 'til better entertainment arrived. Definitely the policy is no fraternization. We go back to tents and love it (nicely lined up too)! On May 15th, 45 bags of mail arrived after a long delay. The 'Recreation Room' and 'Anchor and Hope' go into full swing, much appreciated. Tennis courts laid down, entertainment in Oldenburg good and plenty of it. A show every night in Camp. Afternoons free for sports at least twice a week.

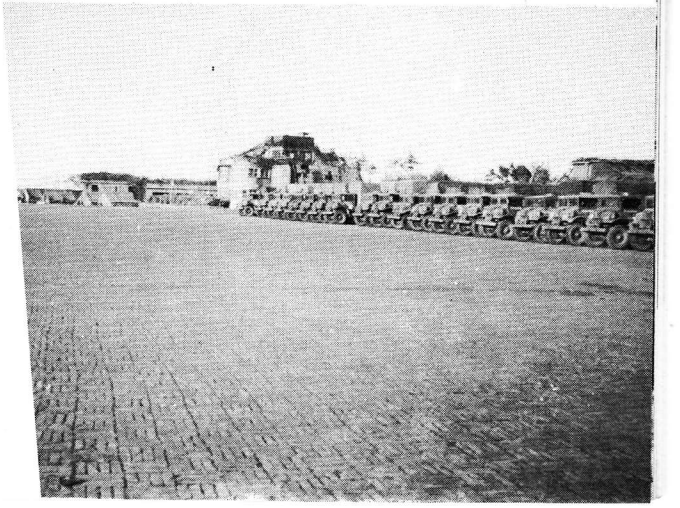
In June, 48 hr Civvylization leaves to Groningen are welcomed along with trips to Bremen, Hamburg and Wilhelmshaven - smashing show! The war's over for sure - daily activity reports no longer required at Headquarters, breakfast at 8, parades 8:45. 1098 equipment is checked, we pack up in preparation for the reallocation scheme in Holland. As long as they don't mistake us for Jerries and get us mixed up with Barleycorn, everything should be O.K.

Mon June 18th brought the splurge to end all splurges. The copious quantities of beer of pre-war potency were picked up on short notice through the kindness of Staff J. Winters of NAAFI, "who really outdid himself", states Staff Kitchenham. And by the way so did 'Kitch'. That was some Canteen parade - so much free merchandize and for nothing too! It was good to see old friends like Capt Bland, Cpl Baldwin and Kellough with us enjoying the spoils of Kitchenham's economy. Even the Sr NCO's threw in their rations (this must be the end!) Special thanks to the Entertainment committee who once again proved themselves to be a well-organized, hard working gang.





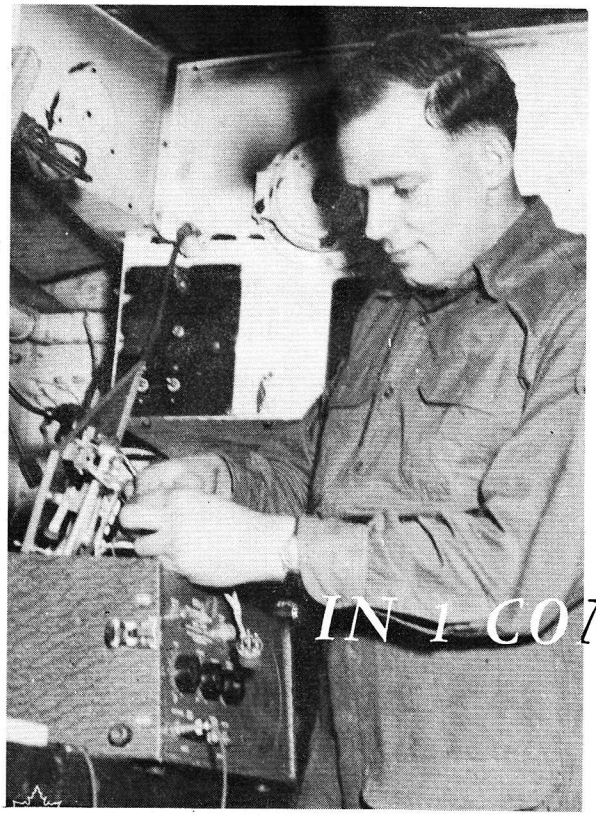
3 Cdn Inf Tps Wksp on Oldenburg Airport Germany, after VE Day May 1945.

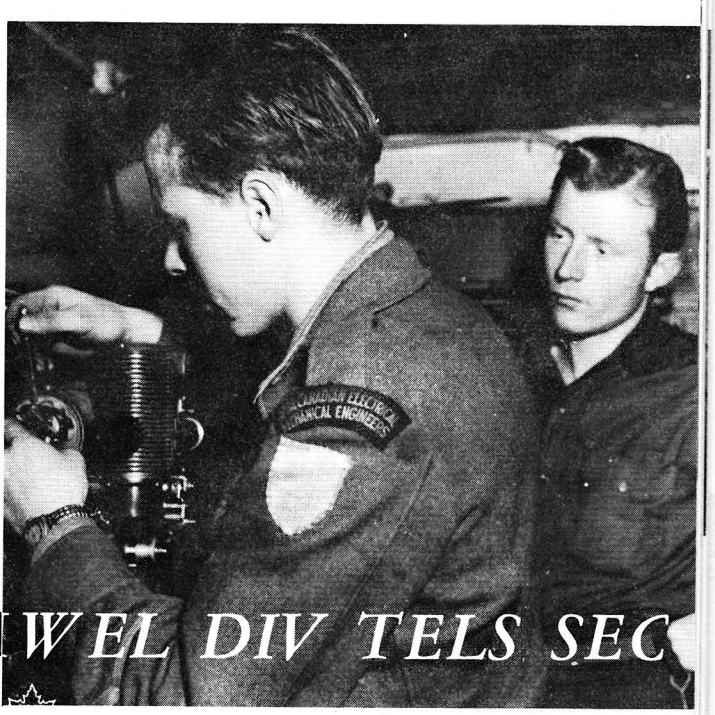


How Many Can *You* Name?

MEN OF THE MV SECTION 3 CDN INF TPS WKSP RCEME IN VEGHEL, HOLLAND, 1944.

§§§





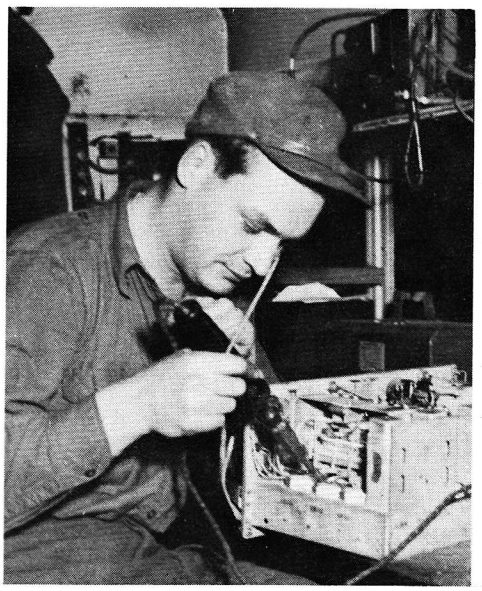
IN 1 COMWEL DIV TELS SEC

Cfn Murphy (Yarmouth, NS) working on a projector, with Cfn R.E. Goulding (Toronto) looking on.
(Cdn Army photos)

Above: Sgt R.J. Cameron RCEME, NCO in charge, working on a tape recorder.

Right: 1 Commonwealth Div Tels Sec is comprised of Britons and Canadians. Here the OC, Capt J. Toombs chats with the Div EME (Tels) Capt Birch both REME.

Below: Cfn R.G. Hines, RCEME, struggles with a receiving set.



CHIT CHAT from KOREA

The following is an extract from a letter received from Major Cam Lane by Lt Col Gord Kirby. -Eds

As you have no doubt heard, 25 Sp Wksp is folding up. None of us are sure yet just what the future holds. At the moment Ed Hallam is in hospital for a check up. If he returns, there might be a chance I shall get home, but if his category is lowered, I imagine I shall go to 191.

When Art Lewis left I was sent up to Div HQ where I am still, to fill in as 2 i/c CREME until Maj McLarnon arrives. I was no sooner settled in than CREME was ordered to Japan by the MD for an enforced rest which has left me as acting CREME.

Korea is not a particularly pleasant place to be especially in the winter. I think the thing that bothers me most is the complete lack of change and relaxation. It is simply a routine of work, eat and sleep with literally nothing else to do. Even at the worst of times in Northwest Europe if one had a day without much to do, it was possible to find a town or city within driving distance that you could visit and at least find a pub. I must say though that the morale is surprisingly high when you see what most of the lads have to put up with.

Lately there has been a terrific drive to design and manufacture various types of heaters for tents and fox holes. Some of them are most ingenious – made out of shell cases and steel ammunition boxes. They all work well and to date no serious accidents have been reported. There have been a couple of tents go up in smoke, but when you consider the number of people who manage to keep themselves reasonably comfortable in this penetrating damp cold, it is a small price to pay. The only one who is at all unhappy is the AA & QMG when he watches the daily petrol consumption figures go up.

Cpl Ed Cushing topping up oil level on 25 pr recoil system, he is attached to 2 RCHA in 25 CIB.

Everyone out here is most anxious to get home, but as long as they are here they are pitching in and doing an excellent job. Most REME officers I meet remark about the keenness and efficiency of the RCEME men and NCOs. We have recovery posts scattered at various strategic points where they are of most use. This involves a crew of three men with their wrecker remaining out day after day in usually lonely spots with just what shelter they can make for themselves. When asked if they want to be relieved, nine times out of ten they refuse and are perfectly willing to keep on the job.

Things have been rather quiet for the past few days, I suppose on account of the peace talks. Everyone listens to news of the latest developments in that direction but always very skeptically. The attitude is – if they want peace let's have it – if not let's forget about it and get on with the war. It does appear though that things are shaping up a little better.

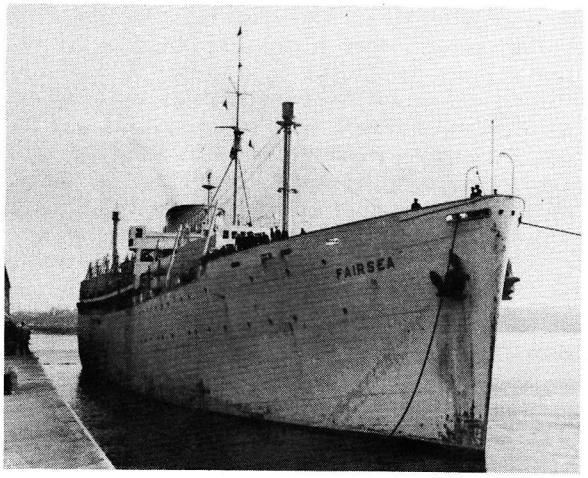
Please convey my best regards to all in DEME and let us hope that I see you soon – in Canada.

Major Cam Lane, OC 191 Cdn Inf Wksp RCEME.

AND GERMANY

And ditto from Major Bill Campbell in Hannover, Germany. -Eds

As you may have heard, our ocean trip was quite pleasant as far as calm seas were concerned. Only on two or three occasions, and then for short periods, was there any roughness worth speaking about. There were two or three of the lads who were not too well but I imagine they would be feeling a bit weezy on a mill pond.



The M/V Fairsea was not the best ship in the world for accommodation. She is actually an immigrant ship and has been on the Holland - Canada run I was told. We were crowded with 4 majors in a cabin about ten feet square. The boys were sleeping in double bunks which were not too badly crowded. The trouble was that the toilet accommodation was not as large as it should have been nor located in the right places, ie, convenient to the dormitories.

The meals were pretty fair but everyone was fast getting tired of too much olive oil in the cooking. We did have rather an interesting experience. By groups of 2 or 3 we were asked to have dinner with the ship's Officers. The crew were Italian so we were forced to try and get around the language difficulty first. However the food was unusual to me. The hors d'ouevres were something I had never had before and also some kind of stuffed pepper. There was too much of it of course and also any amount of Chianti wine and liqueur afterward.

Men of 27 CIB marching off ship at Rotterdam.

We came through the English channel of course and were quite close to the English coast most of the way. It was amusing to hear all the older chaps saying "That's Southampton" etc. as we came along. I think I picked out the Brighton area but it could easily have been any other built up area.

Picking up the North Sea pilot at Dover was quite a sight too. There wasn't enough sea to rock the Fairsea very much but the pilot boat really danced and pitched around. The pilot and the Officers who came out to meet us had to climb up a rope ladder. Just remember not to try it if you're ever given the opportunity.

We were left off the parade in Rotterdam - both 194 Wksp, 1 Cdn Base Repair Section and the advance party of the Artillery. It didn't bother us too much of course. We moved from Rotterdam to Hannover during daylight and had an opportunity to see the country.

We are presently rationed and quartered with 194 Workshop in Chatham Barracks. This arrangement is likely to continue for some time due to the British Q Movements people taking over from 12 Heavy Workshop the accommodation which had been intended for us. We have been unpacking, identifying and locating our stock of spare parts. They of course landed in here before we were ready to accept them. The Ordnance Coy's accommodation was strictly limited so we had to store them temporarily here at the camp and then take them to 12 Heavy on our own. We seem to have plenty of spare parts but so far have not come across any kits of hand tools yet.

Our quarters here are quite comfortable and are gradually being made better. For instance, to-day we had curtains put on the windows. A few more things and it will be quite liveable -- not as good as Kildare of course but pretty good!

PLEASE RETYPE!

It is a sign of inefficiency to do jobs twice over. Yet how often are typed letters returned to the stenographer for retyping!

At present, indeed as always, there is a shortage of clerical help. Therefore a finished letter should very rarely be bounced. It shows poor forethought and it tries the typist's patience.

How can this wasted effort be avoided? Here are some simple rules: In dictating (a) always have the steno read over her (or his) shorthand notes to you; (b) make sure the punctuation is right by having the commas, periods, and paragraphs called as they occur in the text; and (c) check the address, file number, type of paper and the number of copies with the stenographer before she leaves your office.

In writing out drafts (a) write legibly (if possible) and don't use abbreviations unless you have a clear understanding with your typist as to whether they are to be reproduced as is, or whether they are to be written out in full; (b) indicate addressee, file number, type of paper and number of copies on your draft.

Miss Norma Roberts, the girl who does all the neat typing for the RCEME Quarterly.

It is usually quicker for the typist to type a draft from a complicated rough copy leaving blanks for the bits she cannot read and then to do a fair copy, than to waste time puzzling over difficult phrases and possibly having to retype the whole thing.

Ah, say you, my conscience is quite clear. I never fall into the pitfalls you speak of. But when my letter goes up for signature my senior invariably messes it around. He is the bottleneck, not me.

Certainly that is an infuriating situation. But it has to be admitted that in most cases the senior is right. He may be a stickler for the correct phrase or proper paragraphing (staff trained, you know) but, after all, if he signs the letter he is in effect responsible for all that there is in it. And he is more experienced than you are.

What is the remedy? The objective is to get the letter into such a form that he will sign it as his own. Arrange with him that for a time he sees every letter in draft form; study his corrections and learn from them his style and his way of thinking. The draft must be initialled by the senior before it is passed back to the typist.

And, senior officers! co-operate; explain to your subordinate officers or NCOs why the corrections are made. Some RCEME types will never write really good clear English prose, and they know this and are sensitive about it. But they can always improve with training.

Finally, be reasonable. It is better to send out letters with a split infinitive and the odd pen-and-ink correction than leave them over the weekend and so ball up the target date on a production program!

We are indebted to the REME Magazine for an interesting story on the Commonwealth Div in Korea, as reported by 1 Inf Tps Rec Unit. Perhaps the newest in REME, this unit has Canadians (RCEME) as part of its establishment.

When the word first "got around that the Canadians were coming, tales were told of big hairy backwoodsmen, and concern was expressed by many. When the 'Colonials' arrived none would admit of having had doubts. They used different oaths when the winch cut out, but there were few other differences to be found..... one even admitted to coming from a place called London.....

Meanwhile....our latest feat being the backloading of a BLR jet fighter; Canadian and UK rec mechs using a Cdn breakdown to load an Australian plane on a UK trailer – Commonwealth co-operation on a practical level."

RESERVE FORCE

33rd Tech Sqn

On the weekend of the 14 Oct 51, 25 all ranks of our squadron carried out a recovery scheme at Milnet – an almost ghost town, 38 miles north of Sudbury.

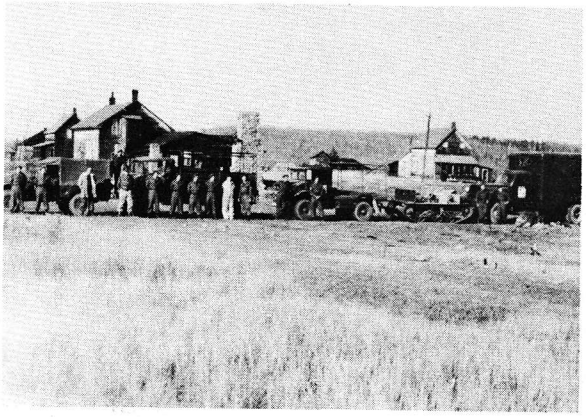
Lt T. J. Baker, our recovery officer, was in charge of the scheme which got off to a good start at 0900 hrs. The convoy consisted of a 3/4 ton Dodge, a 60 cwt, a 15 cwt towing a carrier, an M lorry and a medium Breakdown. Two DRs controlled the convoy.

Convoy procedure was carried out and we found that two DRs gave excellent control over the convoy. We arrived at our destination at 12 noon, towing our one casualty (60 cwt with a plugged gas line).

Before eating, the Sqn was split into two groups and conducted through a layout of an Inf Wksp site which had been set up prior to their arrival. There was considerable discussion and interest shown on this project.

The afternoon was taken up with several recovery problems. Our DP Carrier and our 15 cwt were recovered from some very awkward situations.

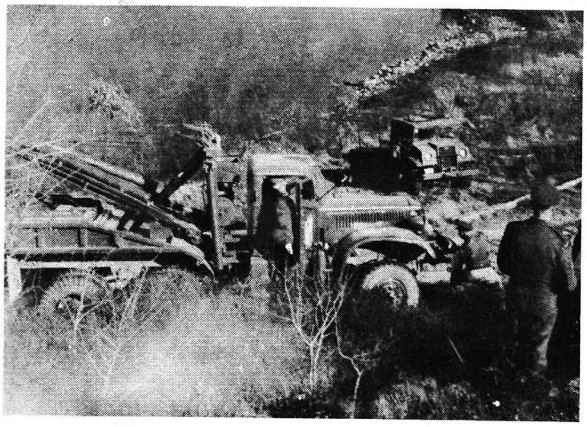
After a quick supper the convoy got under way and we arrived back at the Armoury just after dark.



The convoy lined up at Milnet – our breakdown & DRs were cut out of the picture.

The 15 cwt again – just about on the road.

Recovering 15 cwt with an angular pull.



Pulling the carrier up a 45 degree slope with a 2 to 1 pull.

34th Tech Sqn

By OC R.B. SWEET RCEME

This is the first item published in the Quarterly on the activities of RCEME in Sault Ste Marie and, for that reason, it is necessary to review briefly the period prior to the formation of the squadron.

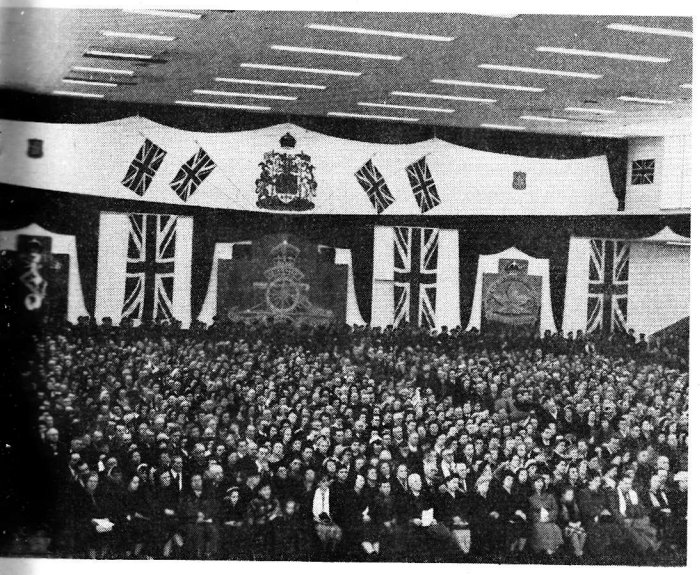
Authority was granted 1 Feb 1947 for the formation of 36 HAA Wksp which was under the command of Lieut Chuck Ketola and functioned as a repair unit for the 49 (SSM) HAA Regt RCA, also located here. The workshop participated in all schemes held by 49 Regt and also conducted its own special-to-corps training until its disbandment on 6 June 1950. The 34th Tech Sqn, for which authority was granted on 18 May 1950, became active as such in September, under the command of Major C.E. Makepeace.

Training commenced with a recovery exercise held at Blind River, Ontario, in which 33rd Tech Sqn, Sudbury, participated jointly with 34th Tech Sqn. Convoy procedures were followed and incorporated as part of training. Thirty to forty men from each unit arrived at

(Please turn to page 38)

Rear row: Cpls Munnoch, Greco, Cfn R. Morton, W. Morton, A. Armstrong, Sgt Burton; centre Cpl Maki, Cfn Hughes, Trainor, Kelly, McConnell, S/Sgt Raniere, Sgt Shuttleworth, Cpl Beilhartz, Cfn E. Armstrong, Cpls LaRue, Wilson, R. Eddy, Reid; front: Sgt/Maj G. Eddy, OC Sweet, OC Cameron, Major Stubbs, O/Cdt Waddell, Sgt/Maj Chalmers.

New Armoury at Sault Ste Marie



Left: Sault Ste Marie citizens assembled in the drill hall to hear the Prime Minister declare their new armoury officially open. In the background can be seen the guard of honour composed of men of the 49th HAA Regiment RCA, and the 34th Tech Sqn RCEME. (Cdn Army photos)

The Corps has a small stake in the new armoury at Sault Ste Marie, the home of the 49th HAA Regt RCA. This first post-war, $750,000 armoury was officially opened by Prime Minister St Laurent PC, QC, LLD, MP on 19 Jan 1952, in the presence of the Minister of National Defence; Maj Gen H. D. Graham, CBE, DSO, ED, GOC Central Command; and other distinguished guests. Col Boehm MBE, represented RCEME.

This new home of the 34th Tech Sqn RCEME (our small stake) is unique in having many facilities and conveniences not usually found in the old-fashioned armoury or drill hall. Some 900 fluorescent lights provide modern lighting for all purposes throughout the building. Over one hundred of these lights are in the ceiling of the 175 by 90 foot drill floor, which is laid out in four basketball, six badminton, and two volleyball courts. Just off this floor is stored almost a complete set of gymnasium equipment.

A fully modern theater seating 384 has a projection room with three 35mm projectors. There is a public lounge off the main lobby with a convenient snack bar and such recreation facilities as four regulation bowling alleys and four billiard tables.

Besides all these minor frills there are, of course, the basic requirements of an armoury; five lecture rooms fully provided with blackboards, work tables, etc; QM stores for all units using the building; a 25-yd rifle range; MIR and (no more line-ups!) 28 washrooms, besides three complete shower rooms with over 800 lockers.

And finally, important in these days of emphasis on recreation, there is a hobby shop with a wide range of wood-working machines and a complete photographic dark room.

Below: Prime Minister Louis St Laurent, accompanied by Defence Minister Brooke Claxton, inspects members of the 34th Tech Sqn RCEME, and the 49th HAA Reg iment RCA, during the ceremony.

38th TECH

RCEME WORKSHOP IN MINIATURE -- Edmonton's 38th Tech Sqn RCEME, usually does things in a big way, but to solve a recruiting problem recently they had to operate in reverse. The problem was to show prospective recruits the lay-out of a typical RCEME workshop, so men of the Sqn constructed a complete workshop in miniature and moved it into the Edmonton Recruiting Depot. Examining their wooden handiwork are Cfn B.R. Ferguson, Cpl R.J. Dunwoodie and Cfn W.F. Deer.

THE RCEME RAILROAD -- As an eye-catcher for the Recruiting Depot, men of the unit designed and constructed a scale model railway system, complete with station, tunnel and switch signals. Below, officers and men watch the miniature railroad in operation in the Recruiting Depot window: Capt C. Heath, 2 i/c Lt W. Stathert, Cfn B.R. Ferguson, Cpl R.J. Dunwoodie, at the rear is Cfn W.F. Deer)

(Cdn Army Photos)

SQN, Edmonton

By Capt C. HEATH RCEME

The jeep was obviously in a hurry. As it bounced over the level crossing by the station and swung right into the RCEME compound it left a trail of bits and pieces – relics of a series of partially completed modifications.

Lt-Col Tootenwhistle unwound himself and headed for the workshop door. A switcher backed up along the railway spur to the loading platform, pushing a couple of flatcars loaded with carriers. Business was really booming! But with the parts situation the way it was, they would probably join the row of tanks and guns for a while – not to mention the ambulance that the FDS had been hollering about for a month.

A little later, as the CO came out with a grim look on his face, the switcher pulled out again with the empty flats and a caboose and disappeared through the timber entrance to the tunnel in Mount Blimp. The 'old man' looked up startled, to see the big crowd of people gathered outside the window, obviously watching his every move. As he spotted a couple of likely recruits he held back the acid comments that were about to spend themselves in the shadowy interior of the shop, and climbed back into the jeep and roared off.

The events leading up to this typical RCEME scene may be of some interest. They all began in the office of 38th Tech Sqn in Edmonton last December.

The Command EME had just finished outlining the new plan to open a recruiting office in downtown Edmonton. It appeared that each Reserve Force unit, beginning with RCEME, would have the use of the display window in that office for the purpose of encouraging prospective recruits to join their particular corps. Each display would last for two weeks – and could we prepare some eye-catching little effort in the time available? We sure could!

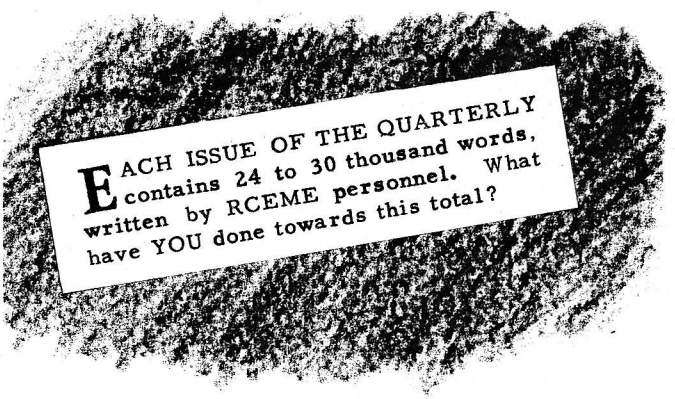
Remembering the crowds of people who gathered around the department stores at Christmas time we decided to manufacture a model railroad with the military theme. Major Couper's words, as he forged another link in the chain of command, sealed my doom; " – and as Unit Training Officer, that should be right down your alley!"

The project began with a sheet of plywood, some HO gauge tie strip and some brass rail which was spiked in place by an enthusiastic crew of engineers. Surveying for the right of way was done with string, a pencil and some welding rod. Cpl Dunwoodie appointed himself Security Officer and manufactured a fence from some bits of welding rod. Other members of the unit hacked out a road bed from quarter inch plywood and Staff Arial glued on some white sand to represent ballast. Cinders for the compound were produced in a dusty cloud by Cpl Semenchuk who pounded up some lumps of coke. Our OC Major Couper, is a construction engineer. He showed himself well qualified by building a number of telephone poles – complete with glass beads for insulators, and making a loading platform with eight inch balsa timbers.

Over the Christmas holiday the set up was moved to our living room and during this period a couple of grassy fields appeared (ten-test sprayed green) and an asbestos mountain complete with tunnel took shape. A few days later Lieut Stothert's telecom troop supplied a 12-volt DC power supply and the train was test-run. It consisted of an 0-4-0 switcher with a slope-back tender, a couple of CPR flatcars and a caboose. These were all assembled from kits.

The final touches were applied the first parade following the New Year when dabs of paint, bits of flock and dyed sawdust and dozens of other items were added by the large gang who came to watch but stayed to work. Cfn Peterson built the back and painted it and we whisked it off to the window to meet the deadline – which had, of course, been revised to suit the completion of the project.

In conclusion we may say that it was a very successful project. Crowds gathered and were impressed – that is, all but one individual who angrily asked the recruiting sergeant what the army was doing with toy trains. Smokey Smith, the guy behind the desk, whipped out the answer without batting an eye, "Well, one of the most important jobs in the Canadian Army nowadays is TRAINING!


EACH ISSUE OF THE QUARTERLY
contains 24 to 30 thousand words,
written by RCEME personnel. What
have YOU done towards this total?

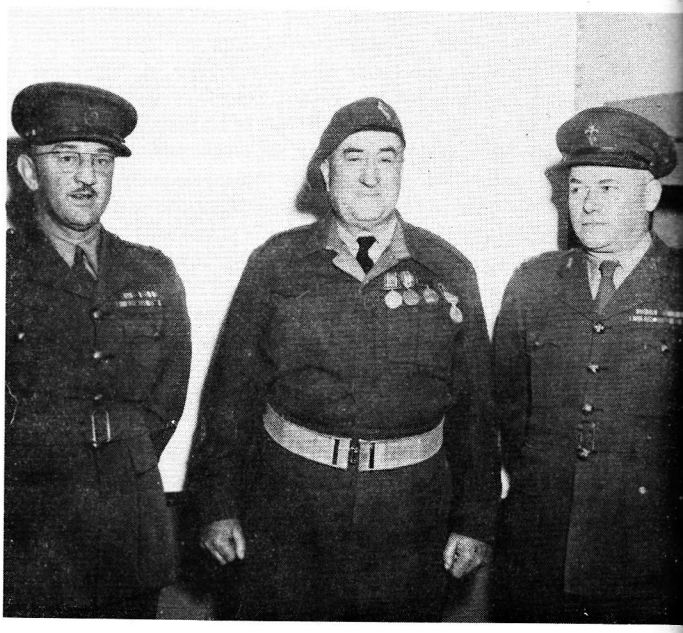
20th Tech Sqn *Halifax*

Highlighting the annual Regimental Smoker of 20th Tech Sqn RCEME Halifax, was the presentation of the Canadian Forces Decoration to Sgt Major B.M. (Pop) Brackett, widely known veteran of World War 1.

Major O.B. Berringer, the OC welcomed the guests and called upon Lt Col H.G.F. Morgan, Command EME Eastern Command, to make the presentation. Lt-Col Morgan gave a resume of the service of WO2 Brackett and extended his congratulations to the veteran on his many years of loyal and exemplary service.

WO2 Brackett enlisted in the 1 Coy Halifax Coast Brigade RCA back in 1905. Mobilized for active service in 1914 he went overseas with the 14th Brigade Ammunition Column and later the 9th Toronto Battery RCA. He took part in the battles of Vimy Ridge, Passchendaele, Cambrai, Amiens, Hindenburg Line, Arras, Bourlon Wood, Lens, Hill 60 and was wounded at Petit Vimy.

After the first World War he rejoined the Halifax Coast Brigade and was promoted to BSM. He retired in 1936, but rejoined the service on enlisting in the RCOC Reserve when a unit was organized for duty in the Second World War. This later became the RCEME unit in which he is still serving.



After the presentation, Major O.B. Berringer ED, WO 2 B.M. Brackett CD, and Lt Col H.G.F. Morgan MBE.

(34th TECH SQN, continued from page 34)

the rendezvous at approx 2200 hrs and prepared quarters for the evening. On the following day each unit conducted a recovery exercise. Vehicles were ditched and proper procedures in their recovery were given verbally by capable instructors and were practised later.

The remainder of 1950-51 season was devoted to GMT and special-to-corps training highlighted by a Welding Course conducted by Mr W. Buller, local Dominion Oxygen Co representative.

Summer Camp 1951 was spent at RCEME School at Barriefield.

The command of 34th Tech Sqn changed hands in November, 1951, when Major C.E. Makepeace left for employment in Welland, Ont. During the interim period following the Major's departure Lt Don Stanton commanded the unit, pending the appointment of a new OC.

The short time remaining prior to the opening of the new armoury was spent entirely on qualifying courses for NCOs. Nine men completed a Jr NCOs course under instruction from I and A Cadre and were presented with their qualification certificates by Lt-Col W. A. Capelle Comd Engr Central Command. This was the first real step towards providing qualified instructors for future recruit training.

On 1 Feb 1952, news was received that Major J. T. Stubbs, previously a capable battery commander with 49 Regt, would take over as OC.

The accompanying photo shows some of the officers and men of 34th Tech Sqn. The RCEME crest in the background was prepared and painted by Capt Jack Gates, 27 Bde, previously with 49 Regt.

* * * * * * * *

The Editors join with OC Sweet, the other officers and men of the squadron in extending thanks to Major Makepeace for his energy in organizing the new (34th Tech Sqn) unit and in extending to Major Stubbs a warm welcome and every success in his new appointment.

The 4th TECH REGT, Toronto

by Lieut E Wilson, RCEME Reserve Force

As 1951 was passing into history 'C' Sqn (Tracked vehicles and recovery) made its final training thrust into the sandy desolate wastes of Camp Borden. Led by the OC, Maj Bill Ackhurst, and Lt E. Wilson, the squadron do-or-die faithfuls CSM 'Just Call Me Jack' Craig, S/Sgt Lane, Cpls Wright, Taylor and Blake, and Cfn Logan left Toronto on a chilly Friday evening early in December.

The object of the scheme was to inspect the training facilities at the RCAC School, Camp Borden, on Saturday, and to conduct a recovery exercise on Sunday, which was to be set up by men of 205 Base Workshop RCEME. Before the weekend was over two impromptu recovery schemes were completed in addition to the planned one.

As the convoy of one Diamond T, one Mack recovery and an 'M' lorry approached the outskirts of the Camp, our first recovery job presented itself. Two civilian cars had arrived at a narrow bridge at the same time. One car had ended up wedged crosswise on the bridge, closing it to traffic. At the request of the Provincial constable in charge we got the car out of the way and cleared the bridge.

Saturday morning found us at the RCAC School. S/Sgt Gell of the school staff conducted us on a tour of the training aids used in training the men who fight in tanks. As various cut-away models were demonstrated in operation it became clearer what a tremendous improvement in training methods this type of training provided.

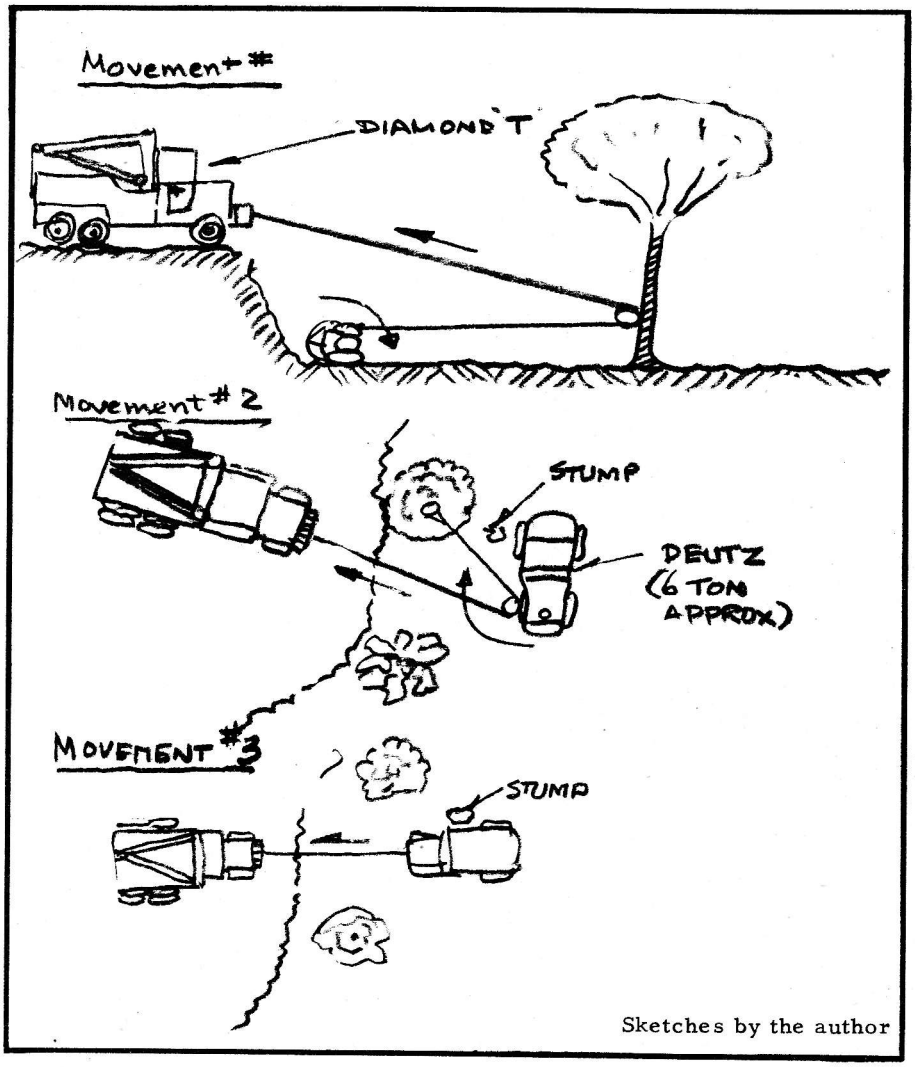
One of the most interesting aids was the tank chassis used for static driving instruction. All controls for driving were as in a standard Sherman M4A2. The final drive of the power transmission system was connected to a water brake instead of to the tracks. The instructor, with the aid of a hand electrical control unit, was able to increase or decrease the load being applied to the final drive. Thus, as the load on the final drive is increased the driver, who perceives this by a decrease in revolutions on the tachometer, must shift to a lower gear. Similarly, if the revolutions increase the driver must shift up. With this method every driving condition can be simulated – we were all eager to try our hand at it!

Other training aids of interest were complete electrical systems from tanks and wheeled vehicles, assembled on a board and wired in such a manner that the instructor could produce one or more trouble spots. The student was then required to follow a laid down procedure for locating them.

To complete our tour of the school we took a ride out to Borden's renowned sand dunes on Salisbury Plain, in a tank with the temperature at a comparatively mild 32°F. Most of us were

S/Sgt Hec Lane removes the tow cable from the German Deutz

Front row: CSM Jack Craig, S/Sgt Lane, Back row: Cfn Logan, Cpls Wright, Blake and Taylor



Sketches by the author

quite glad to return to our own vehicles.

CSM Craig and S/Sgt Lane were VIPs on this particular weekend. While staying in Camp Borden they were given the honour of using the VIP quarters. They were very condescending about their exalted position and, to show they had not become too conceited, entertained at a party Friday evening; 'C' Sqn turned out in full force.

Sunday morning Capt A. B. Otto, 205 Base Workshop, gave us several maps and a Recovery Request for a Z-type casualty. To add a little interest the squadron was divided into three groups and despatched at 5-min intervals to locate the casualty. The map reading exercise fooled no one and all were soon at the recovery site.

The vehicle in question turned out to be a German Deutz from the RCEME War Vehicles Museum. It lay on its side at the bottom of a steep 10-ft bank, in a space restricted by two large trees at either end of the vehicle and by a stump beside one of the rear wheels. To top it all off a swamp extended right up to the base of the hill.

At this point a recovery squad was selected, composed of the three squadron corporals and one craftsman.

After an appreciation of the situation the squad began operations by rolling the vehicle away from the steep bank and into an upright position on its four wheels. Since it was a Z-type casualty, it was then considered permissible to apply a side pull at the front end of the vehicle to drag it into a position facing up the hill. This was accomplished as shown by movement No. 2. The third movement then consisted of a straight pull up the bank and on to level ground.

Capt Otto, at Maj Ackhurst's request, then reviewed the exercise. After first mentioning his surprise at the keenness and ability with which the recovery was completed, Capt Otto

pointed out several errors. These included: operating the recovery vehicle too close to the edge of the bank, necessitating moving to complete the recovery; some carelessness with regard to cables under load; and not taking advantage of the second recovery vehicle to reduce the strain on the first.

All this activity created quite an appetite in all concerned and we adjourned to the various messes for the usual.

In the afternoon it was on to Toronto for us, to be welcomed with stubborn lines of slowly crawling automobiles. Our second impromptu recovery occurred on this return trip. A civilian vehicle in too much of a hurry to pass our M lorry, hit the rear left corner and ended up in a farmer's field trailing a hundred feet of wire fence.

Everyone making this trip was most appreciative of the efforts of the personnel of 205 Base Workshop. They extended to us every convenience of messing, quarters, and transportation; they spent considerable time and trouble in setting up the recovery exercise; and they cooperated to the utmost in making our weekend a success.

New CO

The Toronto RCEME Reserve Force unit, 4th Tech Regt, 132 St Patrick St, has a new Officer Commanding, Lt-Col J. M. Harding, recently promoted from the rank of Major. In a well-attended unit parade on 7 Jan

Lt-Cols J. M. Harding and Les Brodie listen attentively to Maj-Gen Graham following the ceremony.

(Gordon W. Powley photo)

52, Maj-Gen H. D. Graham CBE, DSO, ED, GOS Central Command, officiated at the change of command from Lt-Col Les Brodie ED.

The GOC inspected the smartly turned-out parade and afterwards took the salute on the march past.

Later during the social part of the evening in the Mess where he met many men from his own town regiment the 'Hasty Ps', Maj-Gen Graham presented Lt-Col Brodie with an engraved combination cigarette case and lighter on behalf of the unit personnel.

8th Tech Regt, Vancouver

During a twenty week period, a Driver Mechanics Course is being held by the unit, open to members of other units in the Vancouver area, under the supervision of Sgt-Maj Morritt, and Sgt-Maj Branch. Sixteen men are currently taking the Course, and examinations are held periodically.

There is also a unit Junior NCO School being held at this time, with twenty unit personnel attending.

A highlight of the present training season is the Radar Course being conducted by Capt J. S. Grey and Lieut G. F. Auchinleck, in which twenty men are taking part. Special mention should be made of Lieut Hurst, of the I & A Staff, whose helpful services to the unit in connection with Corps Training is very much appreciated by everyone.

The Regt has recently been fortunate in obtaining a Diesel engine for instructional purposes. This is being torn down and re-assembled under the supervision of WO2 Saunders who is, incidentally, a diesel instructor at the Vancouver Vocational Institute.

Again, this winter, the unit is engaged in a Small Bore Inter-Unit Shoot, and it is noted that quite a few cadets are showing a keen interest in this activity.

– Major J. T. Whiteoak

IS THERE NEWS of your Squadron in this issue? NO? Well – whose fault is that? WE cannot manufacture news.

RCEME CORPS ASSOCIATION

VANCOUVER GROUP

The third monthly meeting of the present season was held on Thursday evening, January 24th, in the RCEME Quarters at Jericho Beach.

After the usual items of business, the Group President, Col N.C. Sherman, who had recently returned from a business visit to England, gave a most interesting talk on his personal observations of conditions in England, the manufacturers' problems from a standpoint of material supply, and in his own inimitable way, described some of the production methods he saw being used, particularly in some of the small arms plants he visited. These, to say the least, appeared to be very much out of date compared with the manufacturing standards used on this continent, but in no way detracted from the final high quality of their products.

Col Sherman then gave a most minute description of the new controversial British .280 calibre rifle, which he had an opportunity of inspecting while in England, adding that he was very favourably impressed with the performance of the weapon.

This was a very interesting subject, covered by a man who is an accepted authority on small arms, and the talk was thoroughly enjoyed by the membership.

– Major J.T. Whiteoak,
Publicity Member,
Vancouver Group.

WOMEN'S AUXILIARIES

We of the RCEME Women's Auxiliary, Toronto, are about to celebrate our first birthday as an organization. Although our membership is small we feel that our efforts have been most rewarding. Our two main objectives have been to send cigarettes to the RCEME personnel in Korea and to act as liaison between these men and their families.

Monthly from June until December 1951 we sent 5000 cigarettes to RCEME personnel in Korea and in January of this year the number was increased to 11,500 cigarettes. At Christmas each RCEME man of the Toronto district stationed in Korea was sent an individual parcel containing a pocket edition book and cigarettes.

At our December meeting we were most fortunate in having Major A.H.K. Lewis, who has just returned from Korea, speak to us and he assured us that the comforts we were sending were most acceptable.

In November the Auxiliary assisted the Corps Association with a most successful dance held at their Mess, 132 St Patrick St. The Corps Association very generously donated the proceeds from the dance to the Auxiliary's cigarette fund. At the 4th Tech Regt Christmas party the Auxiliary undertook the job of catering and from this venture a sizeable sum was realized to further augment the cigarette fund.

The boys in Sunnybrook hospital have been visited and gifts of cigarettes and home cooking distributed.

A delightful evening was spent on March 4th at the home of Lt-Col J.K. and Mrs Bradford, when the wives and mothers of the Toronto district RCEME personnel in Korea were entertained.

At present plans are being made for a "Theatre Night" and a "Tea" to be held in the near future.

–Mrs J.B. Butterill
Press and Pub Rep

The Montreal Chapter of the RCEME Women's Auxiliary was formed on Dec 13th, 1951. Mrs J.E.H. Stethem called together a provisional committee to formulate plans for the organization of an Auxiliary. At the January meeting an executive committee was elected consisting of Mrs J.E.H. Stethem, Pres; Mrs A.G. Edward, Vice-Pres; Mrs A. Miller, Treas; Mrs R. V. Hill, Recording Secretary; and Mrs L. Martin; Press Secretary. A constitution was drawn up by Mrs H.W. Hagey with Mrs L.B. Screaton and Mrs L.E. Webber serving on her committee. The chief purposes of the Auxiliary are to take an active interest in the families of the men on active service and to send gifts to the men who are overseas.

The Auxiliary is at present planning a sherry party to take place in April.

A meeting to be held on March 12th will be addressed by Capt E.W. Cole who will discuss some of the needs of the men on active service and explain how the Auxiliary can assist them.

–Mrs L. Martin
Secretary.

The CORPS BIRTHDAY

The Corps Association at its recent annual meeting passed the following resolution :

"Celebration of Corps Birthday

WHEREAS the Council of Defence Associations has recommended that Army Week will no longer be held;

AND WHEREAS a Resolution is on record in the minutes of the National Association that an Annual RCEME Day be sponsored;

AND WHEREAS it is felt that the intent of RCEME Day should be preserved;

NOW THEREFORE BE IT resolved that instead of an Annual RCEME Day, a celebration of the Corps Birthday be observed each year sponsored by the local Association in conjunction with the local RCEME Unit."

In the eight years that have passed since the Corps formation a great deal of water has passed under the bridge. A war was won; an Active Force RCEME structure has been built up; the Reserve Force RCEME re-organized; and the Corps responsibilities increased.

Now as the ninth year approaches the Corps faces even greater responsibilities – greater in quantity and greater in scope – in the build-up of Western strength.

It is only fitting that the Corps birthday be specially observed. It marks the start of the body to which we owe allegiance. It marks the establishment of a principle of service made necessary by the increasing complexity of the army mechanism. It is an appropriate time to bring the army and the Corps before the public. And it is an appropriate period to remind ourselves that present problems seem difficult – but we have solved as difficult ones before.

what's new in the tool crib

by Major J.W. Whittingham RCEME

Portable Power Hacksaw (Tested at 208 Workshop)

A portable power hacksaw weighing 48 lbs and using an ordinary hand hacksaw blade. It has a capacity of 3" x 3" stock, has a swivel vise and can cut in any position. Although this power hacksaw is too light for constant work in the average workshop it is considered to be very useful in cutting short lengths of metal from the stock rack. This item has been recommended for cataloguing for use in machinery trucks only.

Adjustable Steel Lettering Stamps (Tested at 202 Base Workshop)

A set of letter and number stamps. The letters of the alphabet are complete on two of the stamps and the third contains all the numerals. They are considered far superior to any previous stamps as letters can be rotated around a central pivot and are spring loaded. They are also equipped with a guide to aid in lettering to a given line.***

Isomode Vibration Pads (Tested at 208 Wksp)

Composition pads that will support approximately 40 psi. These are designed to be placed under the bases of machines to eliminate vibration. The lack of vibration permits the machine to float and it therefore requires no fastening to the floor. These will be ideal for second floor installations such as instrument shops etc, but can be used anywhere.***

Artigli Vise Jaws (Tested at 205 Base Workshop)

A set of vise jaws with articulating segments capable of holding odd-shaped pieces. They are reasonably light in weight and can be used in any bench vise.***

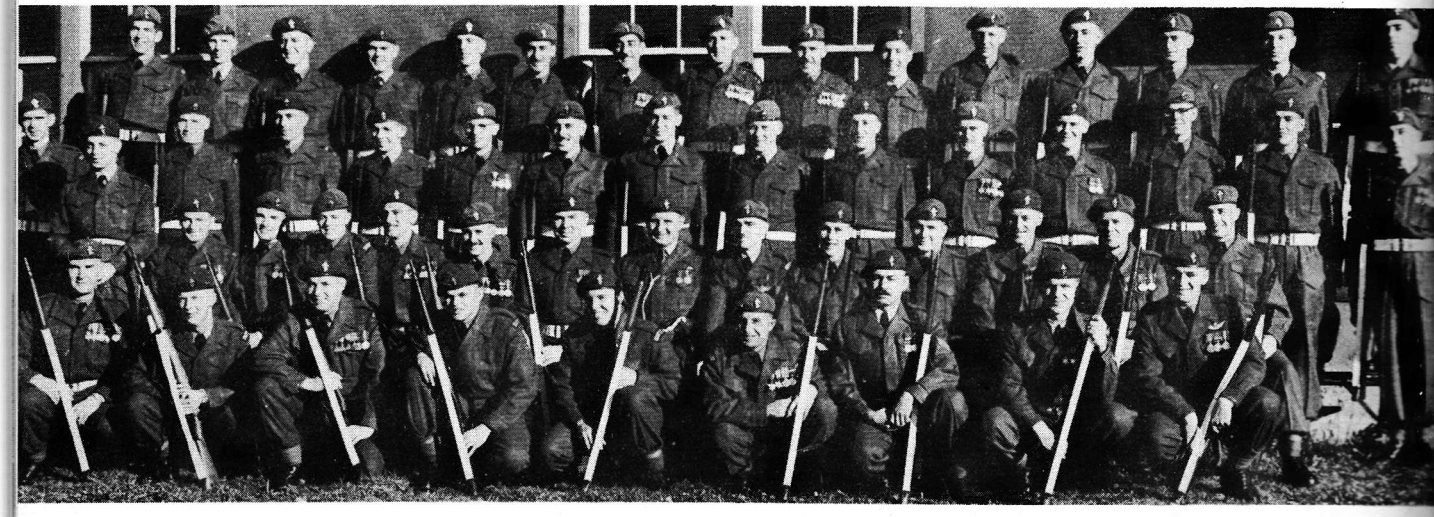
Lightmite Pipe Wrench (Tested at 202 Base Wksp)

A superior light alloy pipe wrench weighing 2 lbs for an 18" wrench or 3/4 lb for a 10".***

NOTE: Items marked *** have been recommended for cataloguing and when authority is granted will be issued to all workshops.

RCEME SCHOOL ELEMENT OF GUARD OF HONOUR FOR VISIT OF PRINCESS ELIZABETH

First row: Cfn Webb, Hoffe, Murphy, Spiers, Barker, Pilote, McLeod, Reid, Crews;
Second row: Cfn Morton (standing), Romonick, White, Gagner, Pruden, L/Cpl Ross, Sgt Ambler, Lt W. J. Jamieson, Sgt Moore, Cfn Madeer, McKenney, Madden, Sutherland, Surrett;
Third row: Cfn Beaudoin, Williams, Gannon, Gatien, Lambert, McIntyre, L/Cpl Thompson, Cfn Black, Smith, McDonald, Arthurs, Legere, Louis, McLean;
Fourth row: Cfn McLafferty, Loveless, Wiebe, Langille, Davidson, Oullette, Beaton, Murphy, Cfn McIsaac, MacIntosh, Hughes, Kendrick, Whittaker, L/Cpl Ranger, Sgt Green.



PERSONALITIES

Lt-Col E. W. Coleman CD, CO 17 Coy RCEME has passed the examinations conducted by the Association of Professional Engineers for the Province of Ontario and has qualified as a Professional Engineer (P Eng). (Cdn Army photo)

2/Lieut V. Roddick was awarded 'General Crerar's Belt' for heading his class at OCS, Camp Borden; a very creditable performance as he was competing against both infantry and armoured corps candidates.

THE RCEME SCHOOL HOCKEY TEAM IN OTTAWA, MARCH 13, 1952

Front row: Cfn 'Doc' Darling, Sgt Ray Knott, Cpl Bill Rostek, Cpl Stew Brooks, Cfn 'Gaby' Gabriel (team captain), Cfn Bill Gould, Cfn Mike Ritchie, Sgt Pete Coughlin. (Back row) Sgt Jack Brennan (manager) Cpl Alex LaScelles, Tpr Len Hillstead, Tpr 'Les' Lesperence, Maj H. M. Robinson (sports director) WO2 Art McDonell, L/Cpl Chris Kennedy, Sgt 'Nels' Nelson, Cpl Jerry Siefert, WO2 Rollie Mullins (coach). (Cdn Army photo)

Active Force officers, *by Commands*-

EASTERN COMMAND RCEME

HQ

Lt-Col H.G. Morgan
Lt K.F. Duggan

No. 6 Coy RCEME

Major H.L. Beanlands
Capt W.H. Hawkins
Capt T. Low
Capt F.L. Demone
Lt J.D. Delaney
Lt W.H. Gladwin
Lt S.A. Fougere
Lt J.J. Kane

No. 7 Coy RCEME

Major A.M. Libbey
Capt R.L. MacDonald
Lt R.W. Libbey

QUEBEC COMMAND RCEME

HQ

Lt-Col A. Miller
Lt E.M. Conway

No. 4 Coy RCEME

Capt W. Beddard
Capt C.J. Hamilton
Lt J.F. O'Connor
Lt A.J. MacGillivray
Lt W.G. Svab
Lt H.A. Rosson

No. 5 Coy RCEME

Major M.A. Dolan
Capt E.A. Barnes
Lt J.A. Richards
Lt R.K. Beach
2/Lt J.H. Cooper

No. 202 Base Wksp

Lt-Col H.W. Hagey
Major R.K. Fulford
Major L.A. Bourbonnais
Major L.B. Screaton

Capt A.W. Hughes
Capt L.E. Webber
Capt W. Rhodes
Lt P.G. Leger
Lt A.S. Etter
Lt J.O. Sheehan
Lt R.K. Martin

(Tech Scaling Section)

Capt B.H. Goodings
Lt R.V. Hill
Lt P.L. Burcombe

CENTRAL COMMAND RCEME

HQ

Lt-Col K.R. Ward
Capt H.F. Protheroe
Lt W.J. Haggins

No. 1 Coy

Major D.C. Smiley

No. 2 Coy

Major J.H. Read
Capt J.D. Trevithick
Capt J.J. Cuddihey
Capt E.R. Anderson

Lt J.K. Sullivan
Lt R.H. MacLeod

No. 205 Base Wksp

Major W.A. Down
Capt R.R. Logan
Capt A.B. Otto
Lt J.C. Ormond
Lt W.R. Shaw
Lt E. MacMillan

No. 3 Coy

Capt J.H. Bourne
Capt G.E. Grainger
Capt T.H. Byington
Lt J.A. Stott
Lt G.D. Savage

Lt F.R. Carruthers
Lt J.S. Crowson
Lt D.M. Maher

No. 17 Coy

Lt-Col E.W. Coleman
Major R.W. Anderson
Major R.L. Davis
Capt G.A. Belcher
Lt W.F. Lucano
Lt D.H. Fraser
Lt H.W. Chapman
Lt J.E. Coates
Lt H.P. Edmunds

(Mech Stores Scaling Section)

Capt W.J. Branston
Lt R.M. MacKenzie

PRAIRIE COMMAND RCEME

HQ

Lt-Col W.M. Dalrymple
Lt L.A. Sainsbury

No. 10 Coy
Capt A.G. Harmer
Capt J.M. Hewson
Capt G.L. Evans
Lt R. Peters

Lt K.S. Parton
Lt F.J. McNaughton
Lt G.B. Chess
Lt J.L. Calvert
Lt W.J. Groom

PRAIRIE COMMAND continued

No. 18 Coy

Capt C.G. Lawrence
Lt P.H. North

No. 12 Coy

Major A.F. Moore
Capt F.G. Johnson
Capt J.L. Loughridge
Lt L.A. Daviss
Lt R.D. Mowbray

WESTERN COMMAND RCEME

HQ

Lt-Col R.F. Jobson
Lt C.B. Hellyer

No. 11 Coy

Major J.J. Garnett
Capt J.A. McKinnon
Capt A.J. Jeffery
Capt H. McManus
Capt E.A. Lower
Lt B.C. Clerke
Lt L.N. Bydal
Lt R.N. Shaw
Lt D.A. Grant

No. 13 Coy

Major T. Bromage
Capt G.P. Miggins
Lt B.E. Babcock
Lt T.J. Foskett

No. 159 LAD 'C'

Capt S.A. Girdler

No. 16 Coy

Major E.R. Ambrose
Capt T.R. Palfrey
Lt J.A. MacDonald
Lt J.W. Moody
Lt W.E. Royds
Lt D.J. Seabrook

No. 20 Coy

Major E.M. Brignell
Lt G.R. Burton

I & A CADRE

Capt J.N. Campbell, Quebec Command
Lt P. Bateson, Eastern Command
Lt. W.D. Alexander, Western Ontario Area
Lt R.A. McKay-Keenan, Prairie Command
Lt C.A. Hurst, British Columbia Area

No. 23 COMP BDE GRP WKSP PETAWAWA

Major J.S. Kitto
Capt B.B. Cox
Capt M. Ruscher
Lt G.A. St Onge
Lt H.W. House

No. 195 Cdn Inf Wksp Barriefield

Major J.P. Sherren
Lt T.P. Durocher

No. 158 LAD 'C'

Lt D.V. Geary

-and overseas

25 CIB GROUP KOREA AND JAPAN

2IC CREME 1 Comwel Div

Major J.R. McLarnon

HQ 25 Cdn Inf Bde

Capt B.A. Beneteau

No. 191 Cdn Inf Wksp

Major R.C. Lane
Capt H.E. McLaughlin
Capt R.C. Rivers
Lt F.W. Chapman
Lt R.J. Evans
Lt R.E. Rodgers

No. 170 LAD 'C'

Capt A.L. MacDonell

No. 192 LAD 'B'

Capt R.A. Auckland

No. 193 LAD 'B'

Lt R.A. Hill

'C' Sqn LdSH (2nd Armd Regt)

Lt W.M. James

25 Cdn Rft Group (Rft)

Capt E.P. Bishop

INCR (A) to 25 CRG

Lt J.R. Peters

Adv Base Wksp

Lt H.S. Fleming

25 CIB RG WAINWRIGHT, Alta

No. 190 LAD 'C'

Lt G.L. O'Brien

27 CIB GROUP GERMANY

Major G.W. Thompson DADEME HQ 27 CDN INF BDE

No. 194 Cdn Inf Wksp

Major G.L. Lodge
Capt C.G. Racicot
Capt J.L. Sloan
Capt H.V. Hann
Lt R.H. Sandilands'
Lt J.R. Raby

"C" Sqn RCD (1st Armd Regt)
Lt D.N. Ross

No. 1 Cdn Base Repair Section
Major W.A. Campbell
Lt J.W. Lelacheur

No. 196 LAD 'B'
Capt D.H. Cumming

No. 197 LAD 'B'
Capt P.A. Tuck

- Names listed as received from D Pers — NOT by seniority within ranks.

All ranks of 1 Cdn Base Repair Section RCEME: (Front row) S/Sgts C.R. Weaver, G. St. Pierre, WO2 J.D. Melvin, Capt R. Gauthier RCOC, Major W.A. Campbell OC, Lt J.W. LeLacheur, WO1 J.E. Brewster, Sgts J.J. Burt, M. Savard. (Second row) S/Sgt J.C. Moore, Cpl G. McDonald, Pte R.M. Granger, S/Sgt J. Hanash, Cfn F.M. Oxtoby, Ptes D.J. Fisher, W.J. McPhee, Pte D.M. Boyd, Cpl H.E. Hicks, L/Cpl J. Fleming, S/Sgt D.B.R. Smith, Pte D. Antoine, Ptes F. Harlow, R.W. Churchill. (Third row) Sgts W.F. Moisse, G.S. Newell, Cpl S.G. Anyan (holding sign), Cpl J.R. MacLeod (holding sign) and Cpl L.A. Gilham.

(Cdn Army Photo)